DESIGN FOR DEVELOPMENT: Northeastern Ontario Region

Phase 1: Analysis

Hon. C.S. MacNaughton
Treasurer and
Minister of Economics

H. I. Macdonald
Deputy Treasurer and
Deputy Minister of Economics

Department of Treasury and Economics
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DESIGN FOR DEVELOPMENT: NORTHEASTERN ONTARIO DEVELOPMENT REGION

PLAN D'AMÉNAGEMENT: RÉGION DU NORD-EST DE L'ONTARIO

ANALYSIS: PHASE I: ANALYSE

Regional Development Branch,
Department of Treasury and Economics,

Direction de l'aménagement régional,
Ministère du Trésor et de l'Economie,

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PREFACE

This report is abstracted from a larger research study in which was analyzed the region's social, economic and physical resources, its trends and problems, and its regional goals, needs and priorities. The present volume contains the basic analysis, omitting only some of the background statistical details. It also includes in full the chapter concerning regional goals, needs and priorities.

L'avant-propos, le résumé sur les tendances et les problèmes, ainsi que le dernier chapitre concernant les buts, les besoins et les priorités, ont été traduits en français. La traduction française se trouve immédiatement après le texte anglais, dans chacune de ces sections.

FOREWORD

This report is one of a series being prepared by the Regional Development Branch for Northern Ontario. It presents an initial analysis of the Northeastern Ontario Development Region's social, economic and physical resources, its trends and problems, and its goals, needs and priorities. Many of the problems discussed in this study were first identified by various other government departments, and in many cases policies and programs intended to alleviate them have been initiated. The report will be refined as a result of commentary from sources both inside and outside of Government. It will be followed by a Phase 2 report which will recommend planning solutions and development policies for meeting the needs and priorities which have been identified.

This study required the cooperation and assistance of a great number of organizations and individuals. In particular, appreciation is herewith expressed to: the Northeastern Ontario Regional Development Council, the Northeastern Ontario Regional Advisory Board, members of the business community, Industrial Commissioners, Planning Boards, Town Clerks, Canada Manpower Centre personnel, members of the academic community and various government departments. Finally, a statement of gratitude is due to the Ontario Statistical Centre for continuous and effective cooperation.

AVANT-PROPOS

Cette étude fait partie d'une série de rapports préparés par la Direction de l'aménagement régional pour le nord de l'Ontario. Il s'agit d'une analyse préliminaire des ressources naturelles, sociales et économiques de la Région du Nord-Est de l'Ontario, des tendances et des problèmes observés dans cette région, ainsi que des buts à atteindre et des besoins et priorités à satisfaire. D'autres ministères ont déjà reconnu l'existence de plusieurs des problèmes exposés ici et, dans bien des cas, ils ont commencé à élaborer des plans destinés à les résoudre. Ce rapport sera révisé en tenant compte des commentaires émanant de personnes au sein même et à l'extérieur du gouvernement. Il sera suivi d'un deuxième rapport qui proposera des solutions de planification et une politique d'aménagement aptes à répondre aux besoins et aux priorités de la région.

Cette étude a exigé la coopération et l'aide d'un grand nombre d'organismes et d'individus, et nous voudrions remercier en particulier le Conseil de l'aménagement régional du Nord-Est de l'Ontario,

les hommes d'affaires, les commissaires industriels, les commissions de planification, les greffiers municipaux, les fonctionnaires du bureau fédéral de la main-d'oeuvre, les personnes engagées dans l'enseignement, ainsi que divers ministères. Nous remercions enfin le Centre ontarien de la statistique de sa collaboration assidue et efficace.

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SUMMARY

Trends and Characteristics

1. The region has experienced an overall population growth which is below the provincial average. If present trends continue, the region's proportion of the provincial population will decline substantially.

2. The region is experiencing a continuing trend towards urban concentration. The larger urban centres are expanding at a relatively rapid rate, while rural areas and some centres associated with gold and uranium mining are declining. Sudbury is the largest urban centre, followed by Sault Ste. Marie and North Bay. All three have well-diversified economies and provide employment and services to large surrounding areas.

3. The existing population distribution is clustered along two settlement corridors. Highway 17 has emerged as a major corridor, encompassing Sault Ste. Marie, the Sudbury Basin and North Bay and including some 300,000 people. The area along Highway 11, from North Bay to Hearst has become another corridor. Kapuskasing, Kirkland Lake and Timmins have emerged as centres of population concentration. Although their economic bases are relatively specialized in either mining or forestry, all have a relatively diversified trade and services sector. Almost

200,000 people live along this urban corridor,

4. The more northern communities along Highway 11, especially Hearst, Kapuskasing, Smooth Rock Falls and Cochrane, are all relatively isolated by distance. Although each is dependent on one main activity, these centres have had to provide an adequate range of trade, services and recreational facilities and have become more self-sufficient than many centres nearer large population concentrations.

5. Little urban settlement or economic development has occurred at any distance from the two major highways. With the exception of Chapleau, on the Canadian Pacific Railway, there is almost a complete absence of population within the Sault Ste. Marie-North Bay-Hearst triangle; and outside it, only Wawa, Hornepayne and White River are of note. Moosonee, on James Bay, is only accessible by air and rail.

6. The region has not equalled the provincial average in some aspects of economic growth. This has been particularly true of employment growth.

7. The region continues to rely on its resource-oriented activities of mining, forestry and related manufacturing industries to provide a substantial proportion of its employment opportunities and income.

8. Growth in manufacturing not directly related to resources

has been limited, except for the production of food and beverages and other activities oriented to local or regional markets. Small-to-medium-sized manufacturing firms have become well-established in Sault Ste. Marie, Sudbury, North Bay and the Tri-town.

9. Tourism has emerged as an important activity, especially along the Great Lakes shoreline and in the districts of Manitoulin and Nipissing, and is likely to increase substantially in the future.

10. Other service activities have increased rapidly in all urban centres of the region. This is partly in keeping with a national trend.

Problem Identification

In view of our ultimate aim to encourage each region to reach its potential, within the framework of provincial interests, we must be aware of the problems which, in the past, have prevented the Northeastern Ontario Region from realizing its potential in income and growth. Regional problems have been defined in order to determine the eventual direction of regional development strategy.

A. Economic Development

1. The region as a whole has a narrow and relatively slow growing economic base. This is the case in most of the larger centres and is particularly so in the many smaller communities. If,

under these conditions, the dominant industry declines, substantial hardship follows because few, if any, alternative forms of employment are available. This has happened in many of the gold mining communities, in Blind River with the closing of McFadden Lumber and in Elliot Lake with the decline in uranium production.

2. There is a shortage, in the region, of manufacturing industries which are not directly resource-oriented. While manufacturing employment is increasing in Sudbury, Sault Ste. Marie and North Bay, it is declining in many other centres. In addition, the manufacturing survey carried out by the Regional Development Branch indicated that some existing firms would not now choose to locate at their present site. Efforts to attract economic activity into the region have largely involved promotion rather than planned development, and industrial parks or serviced sites are not always available even in the larger urban centres. The region has had only moderate success in attracting non-resource-based manufacturing, not only because it is somewhat removed from existing major markets, but also because the present settlement pattern is too scattered to provide adequate industrial linkages and a sufficiently large labour pool. The presence of high-wage dominant industries in the export sector has tended to increase production costs. This has subsequently acted as a deterrent to the establishment of medium-sized firms which sell their produce in local as well as national markets. This is particularly true of the Sudbury area where one industry

still dominates employment in a city of 85,000. Finally, there is a shortage of highly qualified personnel because of out-migration, particularly of the young, dynamic sector of the population.

3. Increasing competition from other countries could seriously affect mining in Northeastern Ontario. There is some evidence that mineral exploration may shift away from Canada, and from Ontario in particular, because of high labour costs and the necessity of exploring in more remote areas.

4. The overall long-run outlook for forest-based industries in the region appears generally favourable. However, on the basis of past trends and information taken from special surveys, no substantial employment increases can be anticipated in the short run. Rising costs have increased the possibility of substituting some wood products with synthetic products. In addition, Northeastern Ontario producers have been serving a relatively slow-growth market. Consequently, they have been reluctant to expand plant facilities substantially. Moreover, considerable productivity improvements, particularly in woods operations, have restricted employment opportunities in this industry.

5. The agricultural sector has the lowest level of productivity per capita and the lowest rate of return on investment of

all sectors. Few of the farms are economically viable, and a lack of investment capital has prevented a full application of modern technology to some agricultural enterprises.

6. The region has considerable potential for tourism but faces the problem of distance from major urban markets. This has handicapped developers in utilizing local tourist attractions to compete effectively with the intervening recreation areas of Georgian Bay, Muskoka and Haliburton.

7. The fragmented market within the region has not allowed the trade and services sector to take advantage of economies of scale, diversification or specialization. This has resulted in a high-cost structure which has acted as a deterrent to both firms and individuals.

8. While technological improvements in mining and forestry have allowed the region to pay above average wages and salaries, they have also required an increasing substitution of capital for labour.

9. At a time when economic activity is increasingly metropolitan and market oriented, it would appear that distance from major markets is a handicap.

10. The economy of Northeastern Ontario has experienced slow growth with respect to employment. Further, because of the

predominance of resource-based industries which characteristically emphasize male labour, opportunities for female employment are relatively limited.

11. Income per capita is below the provincial average. This appears to be largely the result of limited employment opportunities for females. All other income indicators generally compare favourably with the provincial average.

12. The trend towards out-migration appears to be associated, at least in part, with the inability of local firms to increase their employment at the same rate as the labour force.

B. Transportation and Communication Problems

1. Long distances to markets have resulted in high transportation costs to the region's export industries. Lower traffic densities and smaller unit loads caused by limitations of market size have increased the cost structure of imported goods.

2. Certain mineral, forest and recreational resources require access roads to realize their full potential.

3. There is a marked absence of the communication facilities necessary to provide adequate business and social services, also entertainment. This problem is most acute in the more remote northern centres.

C. Social and Environmental Problems

1. Educational opportunities in the more remote areas are relatively limited, especially in the fields of vocational training and manpower retraining. With the displacement of many people in the primary industries, the problem of retraining is particularly acute. The level of educational attainment in Northeastern Ontario, as shown by the 1961 report of the Dominion Bureau of Statistics, is below the provincial average. Although the major centres in Northeastern Ontario have had vocational schools for over 30 years, after the 1961 Federal - Provincial Technical and Vocational Training Agreement vocational education was made available to virtually all pupils.

2. The infant mortality rate in the region is more than 10 per cent higher than the provincial average. There is a shortage of medical and dental specialists outside the large urban centres and many smaller centres under-serviced both as to services and personnel.

3. Housing is inadequate, both in quantity and quality, in many centres of the region. The most apparent shortages are of apartments and medium-priced family homes.

4. In many communities, water and sewer services are inadequate at this time.

5. Environmental pollution of the air and water is a continuing problem.

6. French-speaking residents of the region are heavily concentrated in those districts and centres which have experienced below average economic and employment growth.

7. The Indian population of the region has not fully participated in its economic and social development.

Urban Centres of Opportunity

Thirty potential centres of opportunity were identified in Northeastern Ontario. These were classified as regional, subregional, full convenience and daily shopping centres. There are no megalopolitan or supra-regional centres in the region.

The potential of each centre was analyzed with respect to the following criteria:

1. Growth rates e.g. population, employment and trade
2. Spheres of influence
   - i functional hierarchy
   - ii trade area
   - iii government services
3. Industrial mix
4. Water and sewage capacity
5. Transportation accessibility
6. Housing
7. Availability of industrial sites

Preliminary analysis isolated Sudbury, Sault Ste. Marie and North Bay as regional centres and Timmins, Kirkland Lake, Kapuskasing and Tri-Town as sub-regional centres. In addition, 16 full convenience centres and seven daily shopping centres were identified. These centres of opportunity accounted for 62.6 per cent of the region's population in 1966. However, over 90 per cent of the population live within their spheres of influence.

Regional Goals, Needs and Priorities

Chapter VII identifies eight functional categories within which regional goals have been formulated. These are: economic development, transportation and communication, community and regional environment, social and economic welfare, public safety, health, education, and recreation and culture. Within each of the categories mentioned, specific needs were identified for each district.

Each need was then compared to the provincial average and given a high, medium or low rating depending on whether or not its performance exceeded, equalled or fell short of that of the province.

In all, 82 objectives were identified, 10 under economic development, 12 under transportation and communication, 16 under community and regional environment, nine under social and economic welfare, 11 under public safety, three under health, five under education and 16 under recreation and culture.

The analysis indicates that the region's greatest needs

appear to fall into the categories of economic development and social welfare. In the economic development category, a number of needs have a "high" priority rating for the region as a whole. An example is the need to increase female employment opportunities which has a "high" priority in all districts. On the other hand, increasing male employment opportunities is listed as "high" for Manitoulin, Nipissing and Timiskaming, "medium" for Cochrane and "low" for Algoma and Sudbury. Overall listing for the region is "medium". Decrease out-migration and increase population growth is listed as "medium" in Nipissing and Sudbury and "high" for the other four districts and for the region as a whole.

In social and economic welfare, the need to equalize opportunities for the native population is shown as "high" in all districts as is the need to increase the range of housing available. The need to reduce the disparity between urban and rural income is classed as "high" in Manitoulin and Timiskaming, "medium" in Algoma, Cochrane and Nipissing and "low" in Sudbury. The overall rating is "medium".

Improved medical and dental services, especially in some of the more remote centres has a "high" priority as has the need to upgrade the smaller secondary schools. Improvements in certain aspects of the transportation and communication systems, especially natural resource development roads, should have a relatively high priority.

Under community and regional environment needs, the conservation of prime forest resources is listed as "high" for Algoma, Cochrane, Nipissing and Sudbury, "medium" for Timiskaming and "low" for Manitoulin. Development of the recreational attractions of the region will benefit all districts. The need to preserve historic sites and buildings is listed as "high" for all districts.

Of the 82 rated objectives, 23 have been given a "high" need rating. These are:

Increase productivity in agricultural and tertiary sectors.

Reduce out-migration and increase population growth.

Increase female employment opportunities.

Increase employment opportunities for skilled people and those with higher education.

Increase employment opportunities in manufacturing.

Increase industry diversification.

Natural resource development roads.

Conservation of prime forest resources.

Concentration of urbanization in selected centres.

Equalize opportunity for native population.

Reduce housing costs for low income households.

Increase range of housing type choices.

Reduce traffic fatalities.

Reduce recreation accidents (drownings).

Reduce occupational fatalities.

Reduce occupational accidents.

Reduce property damage from fires.

Reduce incidence of fire fatalities.

Increase the number of doctors and dentists.

Upgrade smaller secondary schools.

Increase adult education and retraining courses.

Increase public facilities: ski/snowmobile trails.

Preserve historic sites and buildings.

RÉSUMÉ

Tendances et caractéristiques

1. Dans le Nord-Est de l'Ontario, l'accroissement de la population est au-dessous de la moyenne provinciale. Si cette tendance continue, la proportion de la population de la province habitant cette région diminuera considérablement.

2. On observe dans le Nord-Est de l'Ontario une tendance continue à une concentration de la population dans les villes. Les plus grands centres urbains s'agrandissent à un rythme assez rapide, tandis que les régions rurales et certains centres urbains dont l'économie dépend de mines d'or et d'uranium déclinent. Sudbury est le plus grand centre urbain, Sault-Sainte-Marie et North Bay viennent en second rang. Ces trois villes disposent d'une économie diverse et fournissent emplois et services dans une large région avoisinante.

3. La population actuelle est massée le long de deux couloirs. La route no 17 est devenue le couloir principal, qui renferme Sault-Sainte-Marie, le Bassin de Sudbury et North Bay, et comprend quelque 300,000 habitants. La région qui longe la

route no 11, de North Bay à Hearst, est devenue un autre couloir où la population s'est établie. Les principaux centres y sont Kapuskasing , Kirkland Lake et Timmins. Bien que la base de leur économie repose sur les mines et les forêts, ces centres possèdent un commerce et des services variés. La population le long de ce corridor est de près de 200,000 habitants.

4. Les agglomérations situées le plus au nord, le long de la route no 11, particulièrement Hearst, Kapuskasing, Smooth Rock Falls et Cochrane, sont toutes relativement isolées par leur distance. Bien que chacune d'elles dépende surtout d'une industrie principale, elles ont toutes dû fournir, du fait de cet isolement, un commerce, des services et des loisirs variés. Elles sont devenues de ce fait, plus autonomes que beaucoup d'autres agglomérations situées plus près des grands centres urbains.

5. Très peu de gens se sont établis et le développement économique est presque inexistant à quelque distance de ces deux routes principales. A l'exception de Chapleau, situé au bord de la voie ferrée du Canadien Pacifique, le triangle Sault-Sainte-Marie - North Bay - Hearst ne compte pratiquement pas d'habi-

tants; en dehors de ce triangle, les seules agglomérations notables sont Wawa, Hornepayne et White River. Moosonee, sur la Baie James, n'est accessible que par avion et par chemin de fer.

6. Cette région n'a pas atteint la moyenne provinciale dans certains aspects de l'expansion économique, particulièrement dans le domaine de l'augmentation des emplois.

7. La plus grande proportion des emplois et des revenus proviennent encore dans cette région des industries primaires, comme l'exploitation des mines et des forêts, ainsi que des industries de transformation connexes.

8. L'expansion de l'industrie de transformation qui n'est pas directement liée aux richesses naturelles a été limitée, exception faite des produits alimentaires et des boissons ainsi que d'autres produits fabriqués pour les marchés locaux et régionaux. Quelques manufactures d'importance réduite ou moyenne se sont fermement établies à Sault-Sainte-Marie, Sudbury, North Bay et Tri-town.

9. L'industrie du tourisme s'est particulièrement développée, principalement le long de la côte des Grands Lacs et dans les districts de Manitoulin et de Nipissing, et devrait s'accroître encore considérablement à l'avenir.

10. D'autres activités se sont aussi rapidement multipliées dans les autres types de services dans tous les centres urbains de la région. Cela correspond en partie à une tendance nationale.

Définition des problèmes

Considérant notre but final, qui est d'encourager chaque région à développer ses possibilités au maximum, dans le cadre des intérêts de la province, nous devons connaître les raisons qui, dans le passé, ont empêché la Région du Nord-Est de l'Ontario d'atteindre ce développement, aussi bien dans le domaine de l'expansion économique que dans celle des revenus. On a déterminé quels étaient les problèmes qui se présentent dans cette région, de façon à pouvoir orienter les projets d'aménagement régional en connaissance de cause.

A. Développement économique

1. Dans son ensemble, cette région présente une base économique restreinte, et dont le rythme d'expansion est lent. Ce phénomène se produit dans la plupart des grands centres mais frappe particulièrement les plus petites agglomérations. Dans ces conditions, s'il se produit une baisse dans l'exploitation des principales ressources, la population en souffre directement, car cette région n'offre que peu ou pas d'autres possibilités d'emploi. C'est ce qui s'est passé dans plusieurs agglomérations situées autour des mines d'or, ainsi qu'à Blind River, lors de la fermeture de l'entreprise forestière McFadden Lumber, et à Elliot Lake depuis la baisse de la production d'uranium.

2. Cette région manque d'industries de transformation qui ne découlent pas directement des richesses naturelles. Tandis que les emplois fournis par ce genre d'industries deviennent plus nombreux à Sudbury, à Sault-Sainte-Marie et à North Bay, on assiste à un phénomène contraire dans beaucoup d'autres centres urbains. De plus, selon un sondage sur l'industrie de transformation effectué par la Direction

de l'aménagement régional, il ressort que plusieurs maisons de la région ne choisiraient plus aujourd'hui le même emplacement pour s'établir. Certaines tentatives ont été faites, en vue d'attirer l'industrie dans cette région, mais elles consistaient surtout en publicité, plutôt qu'en des plans d'aménagement bien définis. En outre, on ne dispose pas toujours de terrains réservés au développement industriel et aménagés, même dans les plus grands centres urbains. On n'a guère réussi à attirer des industries non reliées aux richesses naturelles, non seulement parce que cette région est quelque peu éloignée des principaux marchés, mais aussi parce que la population y est trop disséminée pour permettre une liaison adéquate entre les industries et pour fournir suffisamment de main-d'oeuvre. Le fait que les industries principales, engagées dans l'exportation, paient des salaires élevés, a tendance à faire monter le coût de la production. Les industries d'importance moyenne qui vendent leurs produits sur les marchés nationaux aussi bien que locaux, ne sont donc guère encouragés de venir s'établir dans cette région. Cet état de choses est particulièrement évident à Sudbury, où une seule industrie emploie la

plus grande partie des 85,000 habitants de la ville. Il existe enfin une pénurie de personnel spécialisé dû à l'émigration d'un grand nombre de personnes, particulièrement des jeunes, qui forment l'élément le plus dynamique de la population.

3. La concurrence croissante que l'étranger fait à l'industrie minière pourrait toucher sérieusement les exploitations du Nord-Est de l'Ontario. Certains signes indiquent que l'exploitation minière pourrait bien diminuer au Canada, et particulièrement en Ontario, en raison du coût très élevé de la main-d'oeuvre et de la nécessité d'explorer des régions plus éloignées encore.

4. Les perspectives à long terme paraissent dans l'ensemble favorables dans le domaine de l'industrie forestière. Cependant, si l'on considère les tendances observées dans le passé et les données recueillies lors de sondages spéciaux, on ne peut pas, dans une période à court terme, s'attendre à une augmentation importante des emplois offerts par cette industrie. Avec la hausse du coût de la production, il est de plus en plus possible que les produits de bois soient remplacés par des produits synthétiques.

En outre, les producteurs du Nord-Est de l'Ontario desservent un marché dont l'expansion est relativement lente, et ils hésitent par conséquent à entreprendre d'importants projets d'agrandissement de leurs usines. L'amélioration considérable de la productivité, particulièrement dans l'abattage et le transport du bois, a d'ailleurs diminué les possibilités d'emploi.

5. L'agriculture représente dans cette région le niveau de production par habitant et le taux de revenu les plus bas, en comparaison des autres secteurs de production. Peu de fermes parviennent à survivre et le manque de capital à investir empêche des entreprises agricoles de profiter des méthodes technologiques modernes.

6. Cette région offre de grandes possibilités de tourisme, mais elle est malheureusement située à une grande distance des villes principales. Cette situation entrave sérieusement l'industrie du tourisme qui a peine à faire concurrence aux régions touristiques de la Baie Géorgienne, de Muskoka et de Haliburton.

7. Le marché morcelé que fournit la région n'a pas permis au commerce et aux services de profiter de l'économie de dimensions (d'échelle), de se diversifier en général et de se spécialiser en particulier. Il en résulte que ce système a un coût de fonctionnement élevé qui nuit au succès des entreprises commerciales et des individus.

8. Tandis que les progrès techniques appliqués à l'exploitation des mines et des forêts ont permis d'accorder dans cette région des salaires au-dessus de la moyenne, il n'en demeure pas moins que ces progrès exigent d'effectuer de plus grands investissements de capitaux que de main-d'oeuvre.

9. A notre époque, où l'économie s'oriente de plus en plus vers les métropoles et les marchés, il semble que l'éloignement des principaux marchés soit un handicap.

10. L'expansion économique du Nord-Est de l'Ontario est lente en ce qui concerne l'emploi. En outre, du fait que les industries d'exploitation des richesses naturelles prédominent et qu'elles emploient surtout une main-d'oeuvre masculine, les possibilités de travail sont relativement rares pour

les femmes.

11. Le revenu par habitant est en dessous de la moyenne provinciale. Cela semble provenir du manque d'emplois pour les femmes. Tous les autres indices du revenu sont généralement comparables à la moyenne provinciale.

12. La tendance à quitter la région observée dans la population provient, du moins en partie, du fait que le nombre des emplois offerts par les firmes de la région ne croît pas au même rythme que la main-d'oeuvre.

B. Problèmes de transport et de communications

1. L'éloignement des grands marchés cause des frais de transport très élevés aux industries qui y acheminent leurs produits. D'autre part, le coût des marchandises qui proviennent d'autres régions se trouve augmenté du fait que la densité du trafic est plus basse et que les chargements sont moins importants, puisque le marché local est réduit.

2. Certaines ressources minières, forestières ou récréatives doivent avoir accès à un réseau routier pour réaliser leur pleine valeur.

3. L'absence des moyens de communication nécessaires dans les domaines commerciaux, sociaux et récréatifs est évident et présente un problème sérieux dans les centres nordiques les plus éloignés.

C. Problèmes sociaux et de l'environnement

1. Les possibilités d'instruction sont plutôt limitées, surtout dans le domaine de la formation professionnelle et du recyclage. L'élimination de la main-d'oeuvre causée par la mécanisation dans les industries primaires pose un problème de recyclage particulièrement sérieux. Le niveau d'instruction atteint dans le Nord-Est de l'Ontario, tel qu'indiqué par le Bureau fédéral de la statistique dans son rapport paru en 1961, est inférieur à la moyenne provinciale. Bien que depuis plus de 30 ans les principaux centres urbains du Nord-Est de l'Ontario possèdent des écoles vouées à la formation professionnelle, après l'entente fédérale-provinciale sur la formation technique et professionnelle en 1961, l'éducation professionnelle devint accessible à presque tous les étudiants.

2. Le taux de mortalité infantile dépasse de plus de 10% la moyenne provinciale. On manque de médecins et de dentistes en dehors des grandes agglomérations urbaines et un grand nombre des plus petites localités souffrent d'une pénurie de services et de personnel médicaux.

3. Dans plusieurs agglomérations de la région, le nombre et la qualité des logements laissent à désirer, et c'est le manque d'appartements et de maisons à prix modique qui se fait le plus sentir.

4. Dans bien des localités, les services de distribution d'eau et d'égouts sont présentement inadéquats.

5. La pollution atmosphérique et de l'eau représente un problème constant.

6. Il y a une forte concentration de population francophone dans les districts et les localités où l'expansion économique et l'augmentation des emplois sont au-dessous de la moyenne.

7. La population indienne ne participe pas pleinement au développement économique et social de la région.

Centres urbains offrant des possibilités

On a reconnu trente centres dans le Nord-Est de l'Ontario, qui peuvent offrir des possibilités, et ils ont été classifiés comme suit : centre régional, sous-régional, avec toutes commodités et centre pour les emplettes quotidiennes. Cette région ne compte aucun centre mégalopolitain et aucun centre inter-régional.

Les possibilités de chacun de ces centres ont été analysées selon les critères suivants:

1. Taux d'expansion : population, emplois, commerce
2. Sphères d'influence
   - i hiérarchie fonctionnelle
   - ii domaine commercial
   - iii services gouvernementaux
3. Diversité de l'industrie
4. Volume de canalisations d'eau et des égouts
5. Accès aux moyens de transport
6. Logement
7. Disponibilité de terrains pour l'industrie

Une analyse préliminaire a placé Sudbury, Sault-Sainte-Marie et North Bay au rang de centres

régionaux, tandis que Timmins, Kirkland Lake, Kapuskasing et Tri-Town sont dans la classe des centres sous-régionaux. On a en outre reconnu 16 centres comme ayant toutes les commodités et sept comme étant des centres pour les emplettes quotidiennes. Ces agglomérations comprenaient en 1966 62.6 pour cent de toute la population de la région. Par contre, 90 pour cent de la population vit dans leurs sphères d'influence.

Buts, besoins et priorités de la région

Huit catégories de secteurs d'activités sont décrites au chapitre VII, dans le cadre desquelles on a formulé les buts régionaux: développement économique, transport et communications, environnement local et régional, bien-être social et économique, sécurité publique, santé, éducation, loisirs et culture. A l'intérieur de chacune de ces catégories, les besoins de chaque district ont été précisés.

Ensuite, chaque besoin a été comparé à la moyenne provinciale et évalué comme étant grand, moyen ou faible, selon que le rendement dans chaque domaine concerné était supérieur, semblable ou

inférieur à celui de la province.

En tout, 82 objectifs ont été identifiés, 10 dans le domaine du développement économique, 12 dans celui des transport et communications, 16 dans celui de l'environnement local et régional, neuf dans celui du bien-être social et économique, 11 dans celui de la sécurité publique, trois dans celui de la santé, cinq dans celui de l'éducation et 16 dans le domaine des loisirs et de la culture.

L'étude indique que les besoins les plus importants de la région sembleraient se situer dans les catégories du développement économique et du bien-être social. Dans la catégorie du développement économique, un certain nombre de besoins sont jugés de "grande" priorité pour la région entière. Par exemple, le besoin d'augmenter les possibilités d'emploi pour les femmes est de "grande" priorité dans tous les districts. Par contre, le besoin d'augmenter les possibilités d'emploi pour les hommes est jugé "grand" pour Manitoulin, Nipissing et Timiskaming, "moyen" pour Cochrane et "faible" pour Algoma et Sudbury.

Pour la région en général, ce besoin est jugé "moyen". La réduction de l'émigration et l'augmentation de la population est un besoin jugé "moyen" pour Nipissing et Sudbury et "grand" pour les quatre autres districts et pour la région en général.

Dans la catégorie du bien-être social et économique, le besoin d'équilibrer les possibilités pour la population indigène est indiqué comme étant "grand" dans tous les districts de même que le besoin d'augmenter la diversité des genres de logement offerts. Le besoin de réduire la disparité des revenus entre les régions urbaines et rurales est "grand" pour Manitoulin et Timiskaming, "moyen" pour Algoma, Cochrane et Nipissing et "faible" pour Sudbury. Pour la région en général, ce besoin est évalué comme étant "moyen".

L'amélioration des services médicaux et dentaires, en particulier dans certains des centres urbains les plus éloignés, a une "grande" priorité de même que l'amélioration des petites institutions d'enseignement secondaires. L'amélioration de

certains aspects des réseaux de transport et de communications, particulièrement en ce qui concerne la construction de routes pour l'aménagement des ressources naturelles, devrait avoir une priorité relativement grande.

Dans la catégorie des besoins de l'environnement local et régional, le besoin de conserver les ressources forestières de premier ordre est jugé "grand" pour Algoma, Cochrane, Nipissing et Sudbury, "moyen" pour Timiskaming et "faible" pour Manitoulin. Tous les districts bénéficieront du développement, dans la région, des lieux et des services pour les loisirs. Le besoin de préserver les lieux et les immeubles historiques est "grand" dans tous les districts.

Parmi les 82 objectifs évalués, le besoin de 23 d'entre eux a été jugé "grand". Ils sont énumérés ci-dessous.

Hausse de la productivité dans les secteurs agricole et tertiaire.

Réduction de l'émigration et augmentation de la population.

Augmentation des emplois pour les femmes.

Augmentation des emplois pour les travailleurs spécialisés et les personnes possédant une instruction supérieure.

Augmentation des emplois dans l'industrie manufacturière.

Augmentation de la diversité des industries.

Construction de routes pour l'aménagement des ressources naturelles.

Conservation des ressources forestières de premier ordre.

Concentration de l'urbanisation dans des centres choisis.

Egalité des chances pour la population indigène.

Réduction du coût du logement pour les familles dont les revenus sont faibles.

Augmentation de la diversité des genres de logement offerts.

Réduction des décès causés par des accidents de la circulation.

Réduction des accidents survenus durant les loisirs (noyades).

Réduction des accidents de travail.

Réduction des décès au travail.

Réduction des dommages à la propriété causés par les incendies.

Réduction de la fréquence des décès causés par les incendies.

Augmentation du nombre des médecins et des dentistes.

Amélioration du niveau des petites institutions secondaires.

Amélioration de l'éducation des adultes et des cours de recyclage.

Augmentation des services publics: pistes de ski et de motoneige.

Préservation des lieux et des immeubles historiques.

CHAPTER I

INTRODUCTION

The Regional Development Program

In the Spring of 1966, the Ontario Government tabled its white paper, Design for Development, setting forth the basic policy for Ontario's emerging regional development program.

The white paper and subsequent cabinet announcements detailed certain fundamental regional development policies. These are:

1. That the vital role of the business community be recognized, that its contribution to the provincial economy be continuously assessed in view of provincial needs and resources, and that provincial policies be formed to encourage a rational expansion of private enterprise.

2. That individuals be encouraged to develop their full capabilities through provision of a climate of expanding social and economic opportunities for each region.

3. That regional and resource policies encourage adequate development of the natural environment while conserving the aesthetic qualities of that environment.

4. That the timing and impact of Ontario's large and

expanding public expenditures be planned and coordinated effectively to fulfil, in an orderly way, the needs of the regions in the province as well as of the province itself.

5. That this be a Program for Regional Development which must necessarily involve a working partnership between all of the people of Ontario and Government.

The institutional machinery established for implementing these policies includes a Cabinet Committee on Policy Development, chaired by the Prime Minister; an Interdepartmental Advisory Committee on Regional Development, chaired by the Deputy Treasurer and Deputy Minister of Economics; Regional Advisory Boards comprising provincial field staff; and Regional Development Councils with membership drawn from local governments and private groups.

The Regional Development Branch of the Department of Treasury and Economics is responsible for the preparation of regional plans. These plans, based upon recommendations of Regional Development Councils and the Regional Advisory Boards, plus results of research from universities, from other departments and from the Branch itself, will be presented in two consecutive reports - this Phase 1 analysis of trends and problems, and a subsequent Phase 2 report on planning policy recommendations.

Both will be forwarded to the Regional Development

Councils for public reaction before consideration by the Cabinet Committee as policy.

The Background to this Report

The Regional Development Program has been undertaken in three stages. The inventory stage, completed in 1967, was an assessment of all existing information, projects and policies of Ontario departments which were concerned with regional development. An active program of university research in regional development, also initiated that year, continues to contribute in-depth analysis of specific development issues.

The evaluation stage, completed in 1968, consisted of two parts. One involved the presentation of five-year program recommendations by the Regional Development Councils and parallel reports from the Regional Advisory Boards, both of which provided local evaluation of the nature of the problems confronting each region. The other part, carried out by the Branch, involved the collection and assessment of some 63 statistical indicators of social and economic change for all townships, counties and districts over the 1951-1966 period. The growth of each of these smaller areas was compared with that of the province as a whole to provide a comprehensive evaluation of how each part of every region performed with respect to population growth, mining, manufacturing, services, city growth and other aspects of development. Each indicator was first used

to assess trends individually, then all were combined into a single performance indicator.

The third planning stage begins with this Phase 1 report which is largely concerned with an analysis of the region's social, economic and physical resources, trends and problems, and its goals, needs and priorities.

The basic purpose of this report is to draw together the analysis of opportunities and problems identified by the Regional Development Council, the Regional Advisory Board, other departments and our own staff so that a preliminary assessment may be made of relative needs and priorities for each district and for the entire region.

It is the task of defining future goals and needs for the region that most demands resolution before proceeding with later stages in the Regional Development Program. This report is presented as a tentative starting point in seeking general agreement concerning the most desirable direction and degree of emphasis for future regional change. We intend to make the review of this report an open and frank dialogue, completely in keeping with the program's continuing emphasis on partnership between people and Government in planning a better future for Ontario.

A succeeding Phase 2 report on planning policy will recommend planning solutions and development guidelines for meeting the

needs identified in this report. This Phase 2 report also will be referred to the people, by way of the Northeastern Ontario Regional Development Council, for thorough discussion before it is considered as policy.

Aggregate Performance

We have mentioned previously the evaluation stage of the Regional Development Program in which, using 63 selected indicators of population and economic change, the performance level of each county or district has been compared with the performance of the province as a whole. Five levels of aggregate performance have been distinguished and are illustrated in figure 1.

a. High

b. Moderately High

c. Intermediate (provincial average)

d. Moderately Low

e. Low

The purpose of this stage was to compare the overall performance of the smallest geographical unit for which data were available with the provincial average. Where performance appears to be low, regional development policies of stimulation probably would be required. Where performance is high, policies related to a structuring of growth would be appropriate. Where performance is intermediate, policies of both stimulation and structuring would be considered.

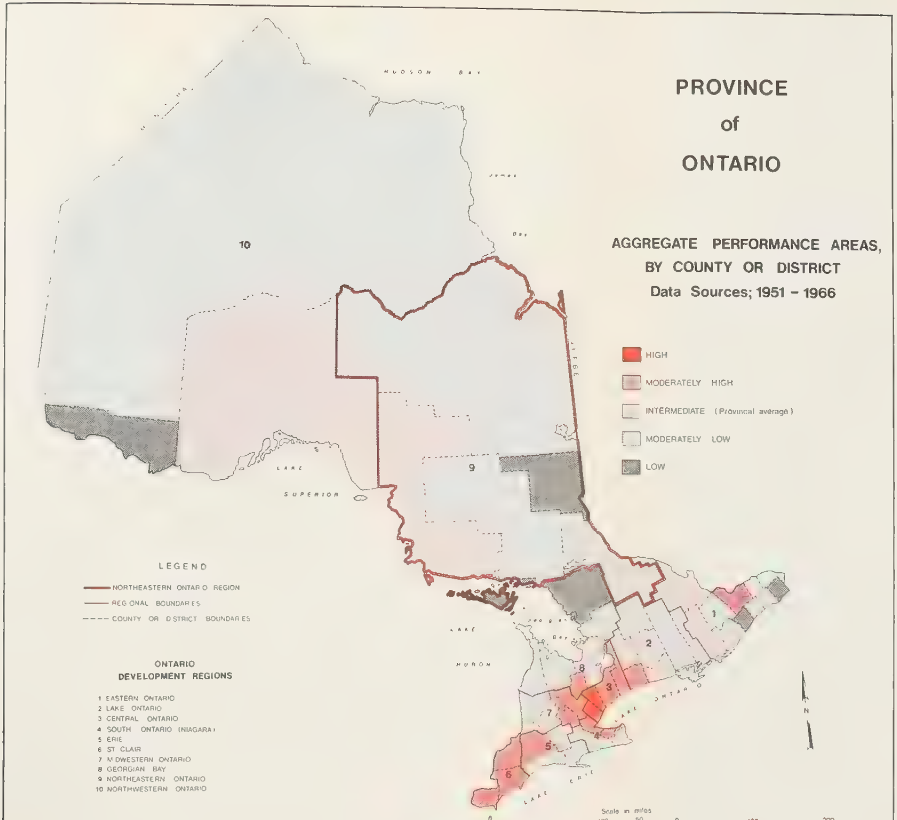


Figure 1

Regional Development Branch, Department of Treasury and Economics

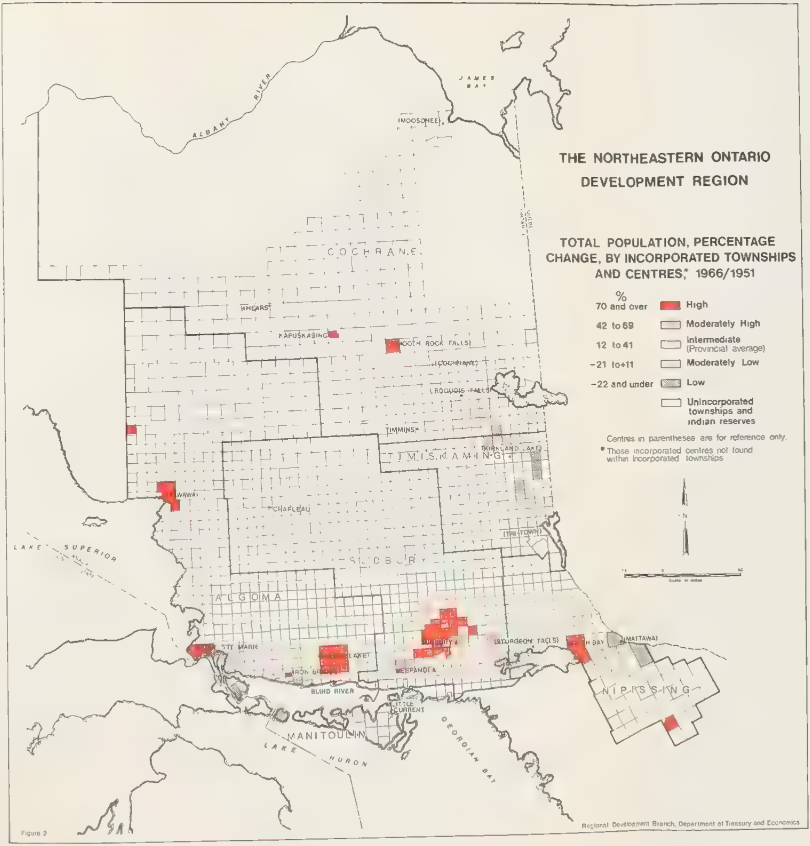

THE NORTHEASTERN ONTARIO DEVELOPMENT REGION
TOTAL POPULATION, PERCENTAGE CHANGE, BY INCORPORATED TOWNSHIPS AND CENTRES,* 1966/1951
%
70 and over
High
42 to 69
Moderately High
12 to 41
Intermediate (Provincial average)
-21 to+11
Moderately Low
-22 and under
Low
Unincorporated townships and indian reserves
Centres in parentheses are for reference only.
* Those incorporated centres not found within incorporated townships
N
Scale in miles
JAMES BAY
ALBANY RIVER
(MOOSONEE)
COCHRANE
HEARST
KAPUSKASING
SMOOTH ROCK FALLS
(COCHRANE)
IROQUOIS FALLS
TIMMINS
(KIRKLAND LAKE)
TIMISKAMING
CHAPLEAU
(TRI-TOWN)
SUDBURY
ALGOMA
STE MARIE
ELLIOT LAKE
IRON BRIDGE
BLIND RIVER
ESPANOLA
(STURGEON FALLS)
(MATTAWA)
NIPISSING
LITTLE CURRENT
MANITOULIN
LAKE SUPERIOR
LAKE HURON
GEORGIAN BAY
Regional Development Branch, Department of Treasury and Economics

Figure 2

The analysis indicates that Northeastern Ontario as a whole has performed below the provincial average. There are, however, differences in the level of performance among the districts of the region, ranging from low in Manitoulin and Timiskaming to intermediate in Algoma.

Of the 63 indicators used in this overall analysis, population change is considered to be one of the most important. Total population change by township between 1951 and 1966 (figure 2) shows that the rate of population growth was generally below the provincial average in townships located in the districts of Cochrane, Manitoulin and Timiskaming, and exceeded the provincial average in the townships within the districts of Algoma, Nipissing and Sudbury.

CHAPTER II

PHYSICAL AND GEOGRAPHIC SETTING

Geographic Setting

The Northeastern Ontario Region, the second largest development region in Ontario, comprises the districts of Algoma, Cochrane, Manitoulin, Nipissing, Sudbury and Timiskaming. It lies at the fringe of the more urbanized areas of North America, north of an urbanization corridor extending from Chicago to Montreal.

Geology and Physiography

Northeastern Ontario is underlain for the most part by the ancient Precambrian rocks of the Canadian Shield. A broad band of igneous, sedimentary and metamorphic rocks extends northeasterly from the north shore of Lake Huron. Mineral deposits are closely associated with these formations (see figure 3).

Paleozoic and Mesozoic sediments underlie the Hudson Bay Lowlands. Paleozoic formations, similar to those of Southwestern Ontario, form the bedrock geology of Manitoulin Island.

Present surface features owe their form and structure to continental glaciation which left behind a remarkable complex of moraines, drumlins, eskers, kames and outwash plains. The region has comparatively little variation in relief. The Canadian Shield

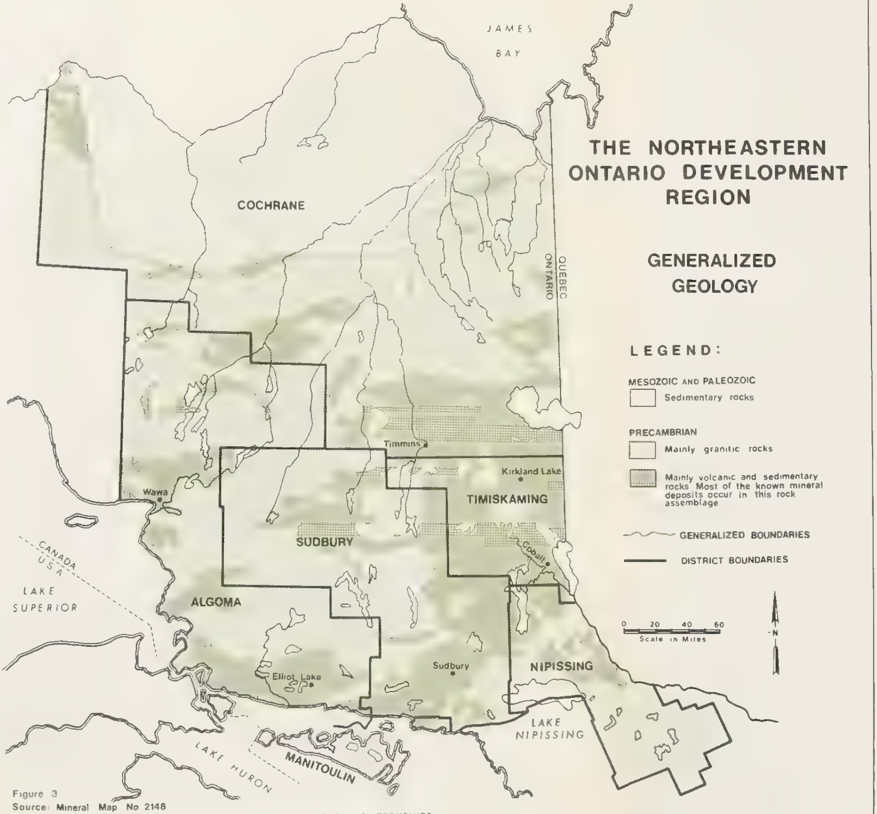


Figure 3
Source: Mineral Map No 2148
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

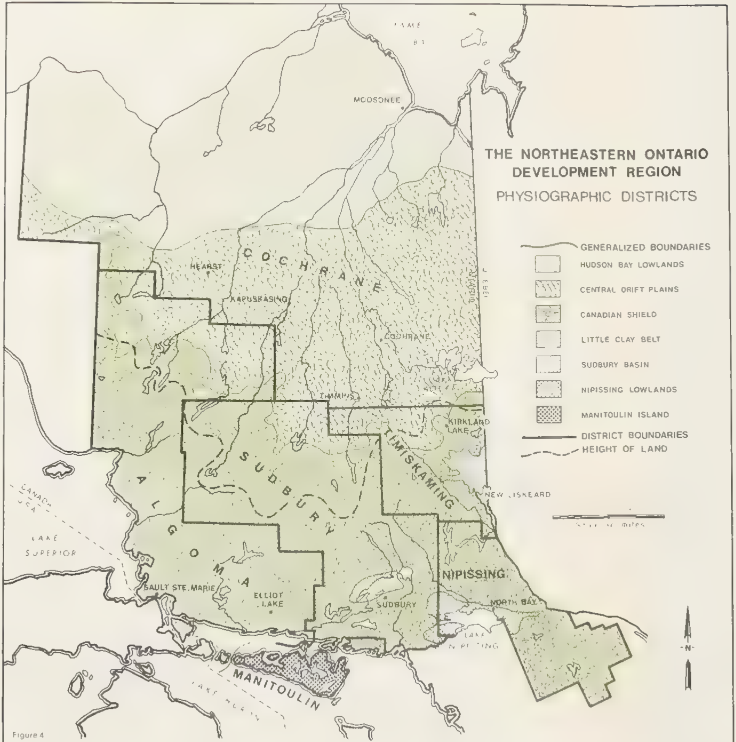


Figure 4

Source Northeastern Ontario Region Economic Survey 1966

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

is generally over 1,000 feet above sea level, forming an elevated, dissected plateau-like surface. The whole region suffers from poor drainage, a legacy of its limited relief and the continental glaciation which disrupted former drainage patterns and created thousands of lakes. On the basis of bedrock conditions and surface deposits it is possible to delimit seven major physiographic divisions in Northeastern Ontario: Hudson Bay Lowlands, Canadian Shield, Central Drift Plains, Little Clay Belt, Nipissing Lowlands, Sudbury Basin and Manitoulin Island. (See figure 4).

Climate

Monthly average temperatures tend to become progressively lower to the north. The January daily average temperatures for Kapuskasing and North Bay are -0.7 and 11.0 degrees Fahrenheit, respectively; July's daily averages are 63 and 65.6, respectively. Greater local change is apparent in the precipitation pattern of the region. While most areas receive an average annual precipitation of between 30 and 35 inches, average annual snowfall varies from 150 inches in the highlands north of Lake Superior to 74 inches at Sudbury. The length of the frost-free season declines considerably inland and northward from the Great Lakes. The southern part of the region averages about 100 frost-free days per year while the northern part averages about 80 days.

Natural Resources

Over vast areas of the region, shallow undeveloped soils, bare rock, bog soils or deep coarse sandy areas tend to be characteristic. Nevertheless, the area does contain pockets of fertile soil although climate, poor drainage and distance from large urban centres have proved to be so disadvantageous that agriculture is carried out in only a few areas.

The Sub-Arctic Forest zone has scattered stands of stunted spruce and birch but much of the land is treeless muskeg. The Coniferous Forest zone, which stretches across the region between the coastal plain and the height of land, has dense stands of black spruce. Farther south, the Great Lakes Mixed Forest zone consists largely of yellow birch, balsam fir, white spruce, white pine and sugar maple (See figure 5).

Northeastern Ontario possesses some of Ontario's most picturesque holiday areas. Hunting and fishing are excellent in almost all parts of the region. However, some of the best areas are inaccessible except by air.

The region ranks first among the province's development regions in mineral production. Its varied mineral reserves are widely dispersed. Nickel, copper, zinc, uranium, gold, silver and iron ore are the most important minerals found in the region.

Figure 5

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS.

Source: Forest Resources Inventory, 1953 - Department of Lands and Forests.

Northeastern Ontario enjoys a large supply of fresh water. Its many lakes, including the Great Lakes, along with its numerous rivers and streams, assure an abundant supply of water both for present and future consumption.

Present Land Use

The present land use pattern has developed largely as a result of the existing rail network. Areas of intensive land use follow the original system of rail lines (See Figure 6).

Two major settlement corridors have developed in Northeastern Ontario. The first is the North Bay-Sudbury-Sault Ste. Marie corridor that stretches along the Canadian Pacific Railway. The other major corridor runs in a northwest arc from North Bay to Hearst. The functions performed by the urban centres along these corridors have influenced their location. Major manufacturing and service centres, for example, developed at key transportation nodes and forest-based settlements developed at the intersection of transportation lines with major river systems. The sites of communities based on mineral extraction, however, were determined primarily by the location of the ore bodies. Consequently, they do not tend to cling so closely to the pre-settlement transportation network.

Besides these two major settlement corridors, a number of sparsely settled areas stretch out along the rail lines with more

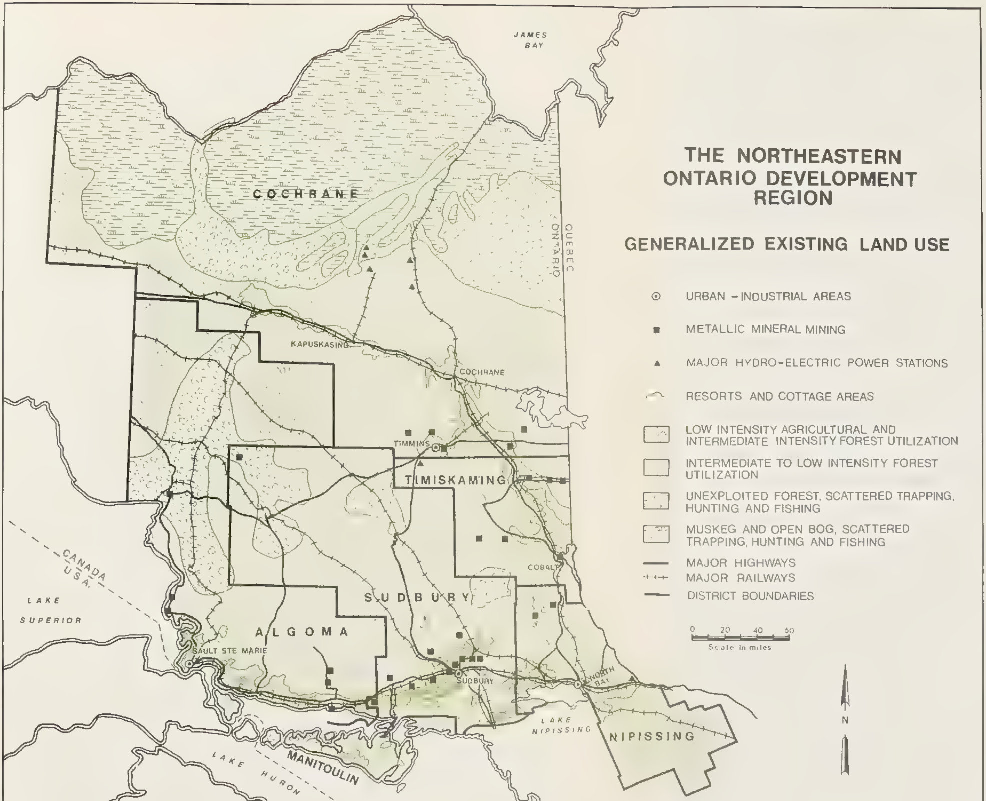


Figure 6

Source Economic Atlas of Ontario

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

densely settled pockets located wherever local mineral or forest resources are commercially exploited.

Agriculture is carried on wherever soil, climate and markets permit. However, forestry is by far the most extensive use which is made of the land. The intensity of forest and agricultural activities increases generally with nearness to the settlement corridors.

Conflicts and Problems

Since Northeastern Ontario is relatively underdeveloped, it could provide an excellent opportunity to set aside significant areas of natural beauty as wilderness areas for the use of both present and future generations. Unfortunately, setting aside such areas could prevent the region from realizing its growth potential because the resource-based industries would be unable to develop fully. The paradox becomes somewhat ironic when it is realized that much of the demand for wilderness areas comes from people who live outside the region and will, therefore, be largely unaffected should the region's growth potential not be achieved.

Groups who want wilderness recreation and/or improved landscape aesthetics in the natural environment have, of course, legitimate needs which must be balanced against the benefits of economic development. A comprehensive land use plan which would zone land for different single and multiple uses could provide a

mechanism for meeting both needs. If these zones were suitably controlled, environmental management requirements could also be met.

CHAPTER III

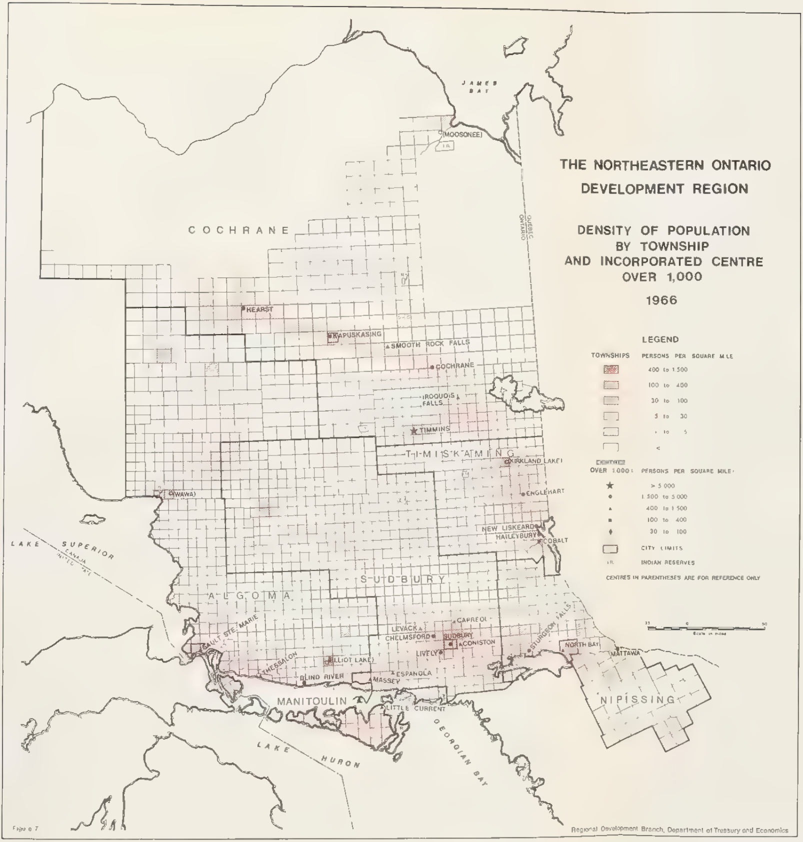
DEMOGRAPHIC AND SOCIAL CHARACTERISTICS

Introduction

An analysis of the demographic and social characteristics of a region is an important part of the preparatory work necessary to the creation of a plan for future development. Population characteristics such as age composition, sex ratios, rates of natural increase and net migration have implications for the stability and growth of the region. Educational attainment and training of the region's labour force, on the other hand, determine to some degree the productivity of its industries, while income analysis can indicate problem areas.

Population

General Characteristics The total population of the Northeastern Ontario Development Region was 516,228 in 1966, or 7.4 per cent of the provincial total. Within Northeastern Ontario, the greatest concentrations of population are located along Highway 17 in the southern part of the region, and along Highway 11 and subsidiary highways in the north. Population outside these two development corridors is limited to a few scattered urban settlements. There is a tendency for population density to decline as areas become more distant from the populated centres of southern Ontario (see figure 7).


THE NORTHEASTERN ONTARIO
DEVELOPMENT REGION
DENSITY OF POPULATION
BY TOWNSHIP
AND INCORPORATED CENTRE
OVER 1,000
1966
LEGEND
TOWNSHIPS
PERSONS PER SQUARE MILE
400 to 1,500
100 to 400
30 to 100
5 to 30
1 to 5
<1
CENTRES OVER 1,000
PERSONS PER SQUARE MILE
> 5,000
1,500 to 5,000
400 to 1,500
100 to 400
30 to 100
CITY LIMITS
INDIAN RESERVES
CENTRES IN PARENTHESES ARE FOR REFERENCE ONLY
JAMES BAY
(MOOSONEE)
COCHRANE
QUEBEC
ONTARIO
HEARST
KAPUSKASING
SMOOTH ROCK FALLS
COCHRANE
IROQUOIS FALLS
TIMMINS
TIMISKAMING
KIRKLAND LAKE
ENGLEHART
NEW LISKEARD
HAILEYBURY
COBALT
(WAWA)
LAKE SUPERIOR
CANADA
UNITED STATES
SUDBURY
ALGOMA
SAULT STE. MARIE
CAPREOL
LEVACK
CHELMSFORD
SUDBURY
CONISTON
LIVELY
STURGEON FALLS
NORTH BAY
MATTAWA
THESSALON
ELLIOT LAKE
BLIND RIVER
ESPANOLA
MASSEY
MANITOULIN
LITTLE CURRENT
NIPISSING
GEORGIAN BAY
LAKE HURON
Regional Development Branch, Department of Treasury and Economics
Figure 7

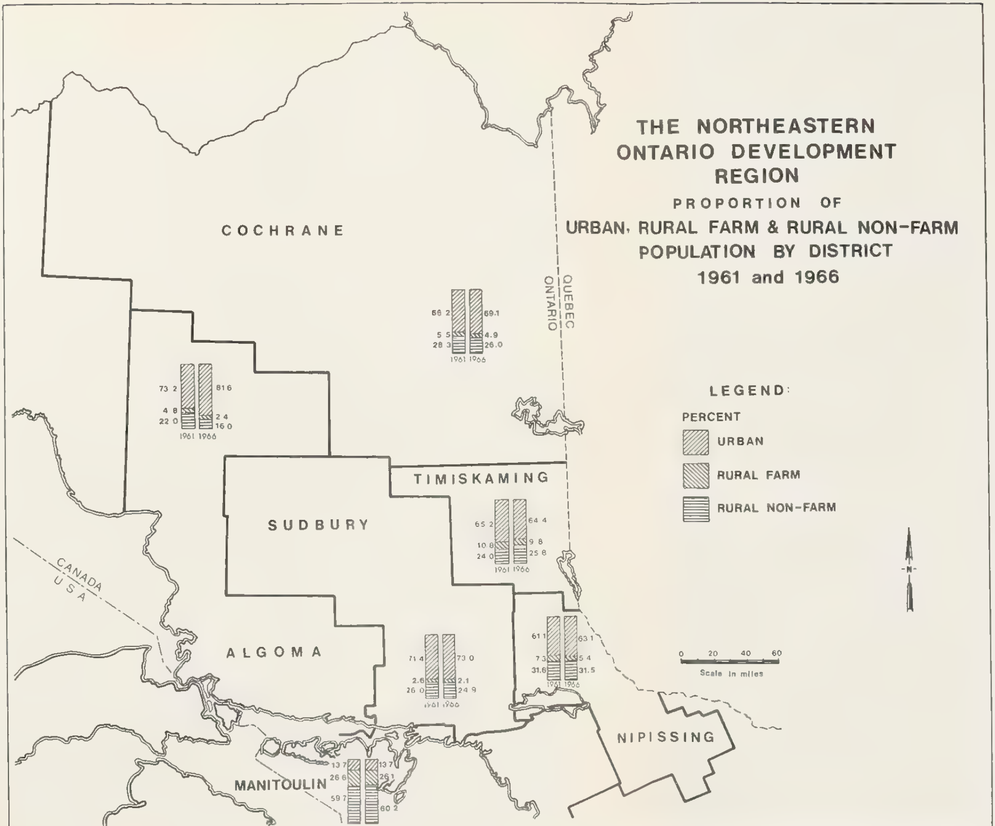


Figure 8

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Population Change The Northeastern Ontario Development Region experienced a declining rate of population growth during the 1951-1966 period. The annual rates of growth of 3.2 per cent between 1951 and 1961 and of 0.4 per cent between 1961 and 1966 compare with the provincial rates of 3.1 and 2.2 per cent, respectively.

More recent assessed population figures, prepared by the Department of Municipal Affairs, suggest a much improved performance since 1966. The annual rate of population growth of 1.8 per cent between 1966 and 1969 compares favourably with the earlier rate of 0.4 per cent during the 1961-1966 period. This growth rate, however, is still below the provincial rate of 2.2 per cent over the same period.

Urbanization Population trends in Northeastern Ontario have indicated an increasing degree of concentration, especially along Highway 17 where the region's largest centres North Bay, Sudbury and Sault Ste. Marie are located. Many of the remote and rural areas have experienced actual population declines. In 1966, the population of the region was 71 per cent urban, i.e. living in settlements of 1,000 or more. Of the districts, only the District of Manitoulin maintains a predominantly rural population.

Natural Increase During 1951-1966, natural increase or the excess of births over deaths was 368 per 1,000 compared with only 249 per 1,000 in the province as a whole. The rates ranged from a

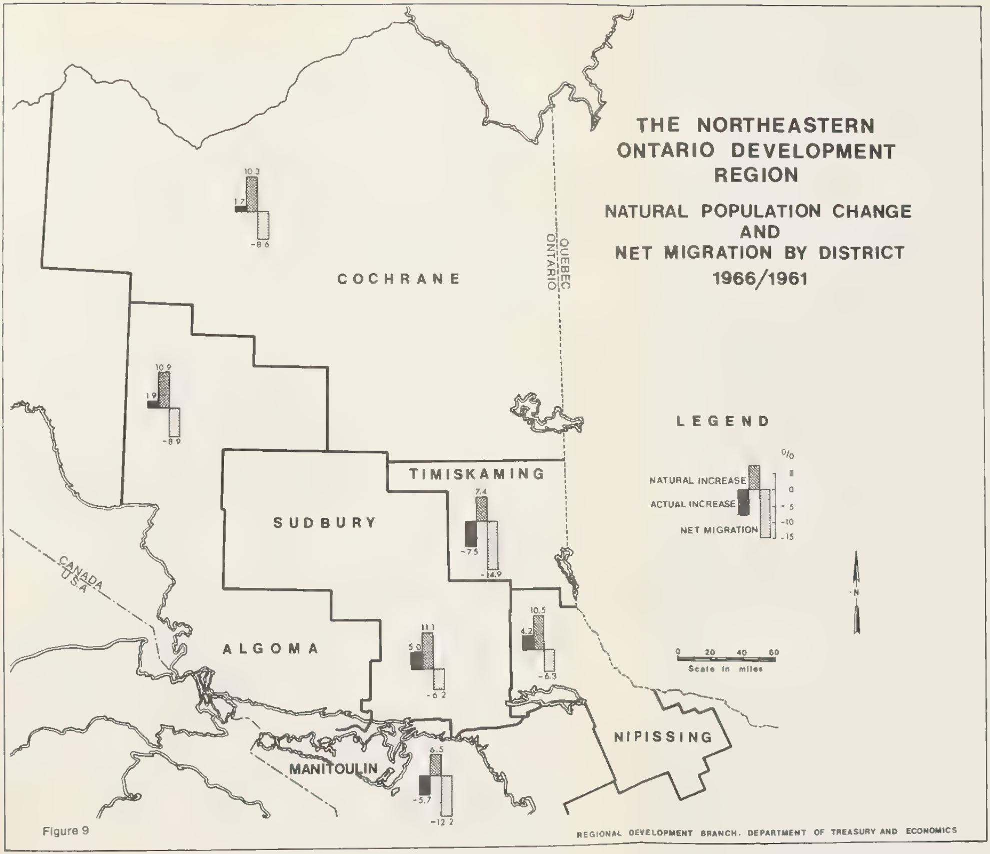

THE NORTHEASTERN ONTARIO DEVELOPMENT REGION
NATURAL POPULATION CHANGE AND NET MIGRATION BY DISTRICT
1966/1961
COCHRANE
10.3
1.7
-8.6
10.9
1.9
-8.9
SUDBURY
TIMISKAMING
7.4
-7.5
-14.9
ALGOMA
11.1
5.0
-6.2
10.5
4.2
-6.3
NIPISSING
MANITOULIN
6.5
-5.7
-12.2
QUEBEC
ONTARIO
CANADA
U.S.A.
LEGEND
%
NATURAL INCREASE
ACTUAL INCREASE
NET MIGRATION
0
-5
-10
-15
N
0 20 40 60
Scale in miles
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Figure 9

TABLE 3.1.

NET MIGRATION, DISTRICTS, NORTHEASTERN ONTARIO REGION AND PROVINCE OF ONTARIO

	Net Migration 1951-1956	% of 1951 Population	Net Migration 1956-1961	% of 1956 Population	Net Migration 1961-1966	% of 1961 Population
Algoma	9,544	14.8	15,485	18.9	-9,942	-8.9
Cochrane	-7,488	-8.9	-2,234	-2.6	-8,215	-8.6
Manitoulin	-1,158	-10.3	-837	-7.6	-1,359	-12.2
Nipissing	3,415	6.8	1,845	3.1	-4,460	-6.3
Sudbury	14,131	12.9	2,227	1.6	-10,210	-6.2
Timiskaming	-5,041	-10.1	-4,409	-8.8	-7,600	-14.9
Northeastern Ontario	13,403	3.6	12,077	2.8	-41,786	-8.3
Province of Ontario	377,005	8.2	308,052	5.7	236,926	3.8

Source: Canada, Dominion Bureau of Statistics, Census of Canada, Population 1951, 1956, 1961 and 1966 and Special Tabulation.

low of 247 per 1,000 in the District of Manitoulin to a high of 411 per 1,000 in the District of Sudbury.

Migration The region was able to attract a substantial number of migrants in the 1950's. The districts of Algoma, Sudbury and Nipissing showed the highest ten-year gain from net in-migration. The districts of Manitoulin, Timiskaming and Cochrane, which have large rural components, all experienced considerable out-migration.

In the early 1960's, the overall situation changed to one of net out-migration. The change is most dramatically illustrated in the District of Algoma which changed from a net in-migration gain of 18.9 per cent between 1956 and 1961 to a net out-migration of 8.9 per cent over the 1961-1966 period.

Age Structure In 1966 the region had a higher proportion of young people than the province as a whole. In the Northeast, 53.3 per cent of the population was under 25 years of age, compared with 47.3 per cent for the province. At the same time only 5.6 per cent of the region's population were over 65, compared with 8.1 per cent for the province.

Sex Ratios There is a larger proportion of males in Northeastern Ontario; in 1966, 51.5 per cent of the population of the region were male, compared with 50.0 per cent for the province.

Ethnic Distribution The region has a higher proportion

of both French and Indian population than is the case for the province. Some towns such as Hearst, Sturgeon Falls and Chapleau are almost entirely French speaking.

Labour Force

The region's annual rate of growth of 2.2 per cent during 1951-1961 was slightly below the provincial rate of 2.4. Within the region, the districts of Algoma, Nipissing and Sudbury realized rates of growth in excess of the provincial average, while the districts of Cochrane, Manitoulin and Timiskaming experienced either an insignificant increase or actual declines. Since 1961, however, there has been a substantial reduction in growth rates in all districts of Northeastern Ontario.

TABLE 3.2

LABOUR FORCE OF NORTHEASTERN ONTARIO, 1951 and 1961

	1951	1961	Average Annual % Rate of Growth
Algoma	24,921	38,615	4.4
Cochrane	30,793	31,169	0.1
Manitoulin	3,722	3,223	-1.4
Nipissing	17,293	22,192	2.5
Sudbury	40,326	55,254	3.2
Timiskaming	17,913	16,585	-0.8
Northeastern Ontario	134,968	167,038	2.2
Province of Ontario	1,884,941	2,393,015	2.4

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961

Participation Rates The participation rate is the percentage of population 15 years of age and over actually working or seeking employment. In 1961, the Northeastern participation rate was 53.2 per cent compared with a provincial rate of 56.6 per cent. The difference can be largely explained by the low female participation rate prevalent throughout the region. Within the region, total participation rates range from a low of 45.5 per cent in the District of Manitoulin to a high of 55.5 per cent in the District of Algoma.

TABLE 3.3

LABOUR FORCE PARTICIPATION RATES, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951			1961		
	Total	Male	Female	Total	Male	Female
Algoma	55.0	85.6	18.9	55.5	82.6	25.7
Cochrane	55.1	85.8	17.2	52.5	79.1	22.3
Manitoulin	49.4	77.3	18.1	45.5	66.7	22.9
Nipissing	51.3	81.9	18.9	50.7	75.4	25.1
Sudbury	54.8	85.1	17.0	54.3	81.2	24.4
Timiskaming	53.2	84.0	18.6	51.1	76.8	23.3
Northeastern Ontario	54.1	84.6	17.9	53.2	79.6	24.3
Province of Ontario	55.1	84.2	26.1	56.6	81.1	32.9

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force 1951 and 1961

Income

With the exception of per capita income, income indicators in Northeastern Ontario are generally comparable with those in the province as a whole. In general, the urban centres of the region enjoy a much higher level of income than do the rural areas. Areas which are based upon manufacturing and base metal operations have attained the highest income levels. Somewhat less prosperous are the one-industry towns dependent upon precious metal or forestry operations.

The region also compares favourably with the province in terms of income distribution. The proportion of people with low incomes in the province exceeds that of the region. However, low income areas do exist in the region, Manitoulin Island for example, and need to be carefully studied (see figure 10).

Education

Levels of educational attainment in the Northeastern Ontario Region are rising, yet still lag behind the levels existing in the province and in most of the other regions. The latest year for which data are available is 1961. While considerable improvement has been made since then, it is still worthwhile to compare the regional and provincial figures as shown in Table 3.5.

Of the total population 15 years of age and over in 1961,

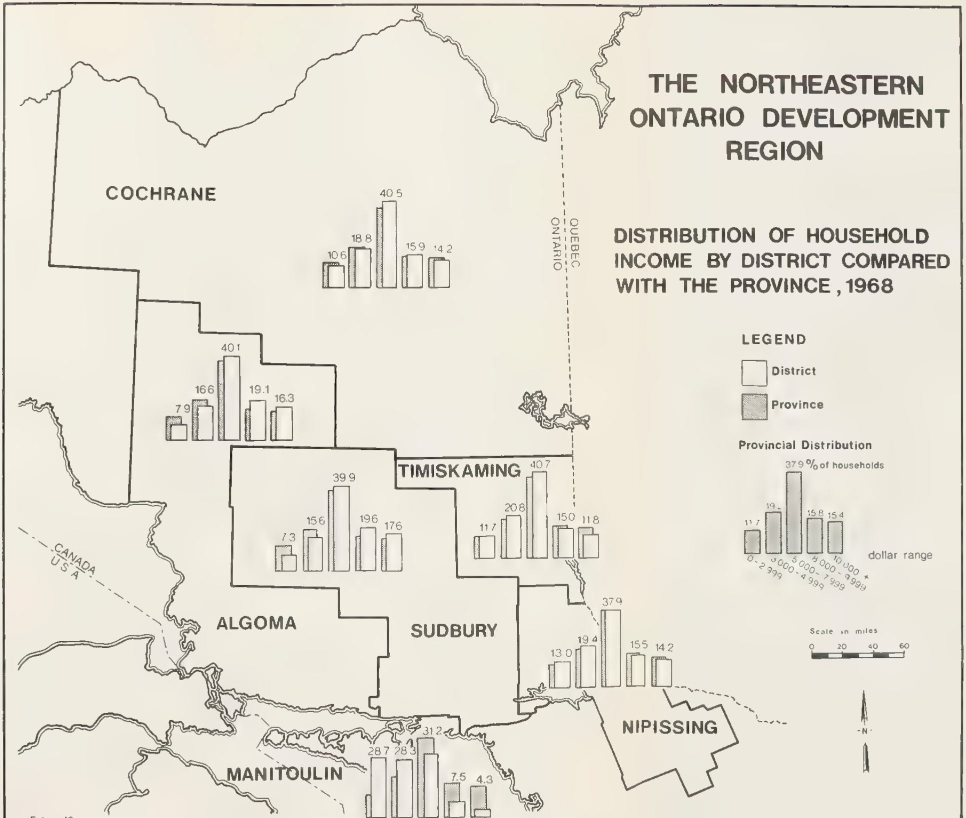


Figure 10
REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS
Source SALES MANAGEMENT MAGAZINE 1969

TABLE 3.4

PER CAPITA, AVERAGE PERSONAL AND PER HOUSEHOLD INCOME, DISTRICTS, NORTHEASTERN ONTARIO REGION AND PROVINCE OF ONTARIO, 1961 AND 1966

	Per Capita Income[a]			Average Personal Income			Per Household Income[b]		
	1961	1966	% Change 1966/1961	1961	1966	% Change 1966/1961	1961	1966	% Change 1966/1961
Algoma	1,445	2,071	43.3	4,090	4,918	20.2	6,350	8,321	31.0
Cochrane	1,378	1,780	29.2	3,561	4,483	25.9	6,058	7,696	27.0
Manitoulin	913	1,298	42.2	2,710	2,921	7.8	3,787	5,190	37.0
Nipissing	1,240	1,636	31.9	3,408	4,086	19.9	5,523	7,104	28.6
Sudbury	1,502	1,983	32.0	4,061	4,718	16.2	6,721	8,480	26.2
Timiskaming	1,392	1,829	31.4	3,369	3,904	15.9	5,601	7,222	28.9
Total, Northeastern Ontario Region	1,406	1,887	34.2	3,809	4,533	19.0	6,161	7,920	28.6
Total, Province of Ontario	1,604	2,117	32.0	3,825	4,686	22.5	6,247	7,970	27.6

[a] Per Capita Income is Net Effective Buying Income divided by Total Population.
[b] Per Household Income is Net Effective Buying Income divided by Total Households.

Sources: Sales Management Magazine, 1962 and 1967.
Taxation Statistics, Department of National Revenue, Taxation, 1963 and 1968, Table 5 and Table 6.

53.3 per cent in Northeastern Ontario had either not attended school or had terminated their education at the end of elementary school. This compares with 43.9 per cent of the population in the province as a whole. However, this is partially a consequence of lack of employment opportunities for the relatively well-educated sector of the population. Of the ten regions, Northeastern Ontario ranked eighth in the proportion of population with four or five years of secondary education and seventh in the proportion with a university degree. The highest levels of attainment were found in the more urbanized districts of Algoma, Sudbury and Nipissing while the lowest level was in the more rural District of Manitoulin.

The remoteness of many Indian Reserves, together with administrative problems concerning which level of government is responsible for their education, has meant that few Indians of school age have been able to take advantage of education beyond the early grades. For example, a survey carried out by the Federal Department of Northern Development and Indian Affairs shows that of 2,556 Indians between the ages of 16 and 44, only 14 achieved a post-secondary school education. Furthermore, only one-third were able to attain an educational level above the primary grades.

In terms of educational facilities available, distinct disparities exist within Northeastern Ontario. While large communities compare favourably with the rest of the province, smaller more

TABLE 3.5

EDUCATIONAL ACHIEVEMENT, NORTHEASTERN ONTARIO AND PROVINCE OF ONTARIO, 1961

Educational achievement of population over 15, not attending school	Algoma		Cochrane		Manitoulin		Nipissing		Sudbury		Timiskaming		Northeastern Ontario		Province of Ontario	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Less than 5 years elementary	5,448	8.5	7,685	14.2	905	14.2	4,628	11.6	9,241	10.0	3,096	10.5	31,003	10.8	239,097	6.1
5 years or more elementary	25,729	40.2	24,205	44.7	3,251	50.9	15,513	38.8	39,510	42.6	13,515	45.9	121,723	42.5	1,471,078	37.8
1-3 years secondary	19,849	31.0	14,258	26.4	1,476	23.1	11,298	28.3	26,849	29.0	7,710	26.2	81,440	28.4	1,206,845	31.0
4-5 years secondary	10,330	16.1	6,124	11.3	609	9.5	6,854	17.2	13,260	14.3	4,085	13.9	41,262	14.4	737,462	18.9
Some university	1,359	2.1	989	1.8	69	1.1	822	2.0	1,993	2.1	536	1.8	5,768	2.0	108,525	2.8
University degree	1,334	2.1	881	1.6	80	1.2	826	2.1	1,813	2.0	484	1.7	5,418	1.9	132,445	3.4
Total	64,049	100.0	54,142	100.0	6,390	100.0	39,941	100.0	92,666	100.0	29,426	100.0	286,614	100.0	3,895,452	100.0

Source: Dominion Bureau of Statistics, Census of Canada, 1961, Special Tabulation.

TABLE 3.6

URBAN AND RURAL SCHOOL ENROLMENT, NORTHEASTERN ONTARIO AND PROVINCE OF ONTARIO, 1961 AND 1966

	Elementary						Secondary					
	1961			1966			1961			1966		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Algoma	11,055	12,183	23,168	19,777	6,807	26,584	3,816	798	4,614	5,906	961	6,867
Cochrane	13,545	8,820	22,365	14,524	9,206	23,730	2,615	598	3,213	4,270	574	4,844
Manitoulin	457	1,058	1,515	429	941	1,433	342	180	522	380	172	552
Nipissing	7,950	8,156	16,106	9,013	9,043	18,056	2,986	-	2,986	5,072	-	5,072
Sudbury	22,856	14,539	37,395	26,181	16,823	43,004	5,966	593	6,559	8,301	2,592	10,893
Timiskaming	6,939	4,030	10,969	7,258	3,397	10,655	2,773	-	2,773	3,431	-	3,431
Northeastern Ontario	62,802	48,786	111,518	77,245	46,217	123,462	18,498	2,169	20,667	27,360	4,299	31,659
Province of Ontario	624,779	225,376	861,715	131,650	232,705	1,364,871	278,689	20,488	299,177	400,336	34,518	436,026

Source: Ontario Department of Education, Report of the Minister, 1961 and 1966.

TABLE 3.7

ELEMENTARY AND SECONDARY SCHOOL ENROLMENT BY SEX AND STUDENT-TEACHER RATIOS, DISTRICTS, NORTHEASTERN ONTARIO REGION AND PROVINCE OF ONTARIO, 1966

	1966 - Elementary School				1966 - Secondary School			
	Enrolment			Student-Teacher	Enrolment			Student-Teacher
	Male (1)	Female (2)	Total (3)	Ratio (4)	Male (5)	Female (6)	Total (7)	Ratio (8)
ALGOMA	13,597	12,987	26,584	29	3,658	3,209	6,867	18
COCHRANE	12,290	11,440	23,730	28	2,554	2,290	4,844	19
MANITOULIN	794	639	1,433	28	291	261	552	17
NIPISSING	9,260	8,796	18,056	28	2,706	2,366	5,072	17
SUDBURY	21,898	21,106	43,004	28	5,775	5,118	10,893	18
TIMISKAMING	5,462	5,193	10,655	27	1,809	1,622	3,431	19
TOTAL, NORTHEASTERN ONTARIO REGION	63,301	60,161	123,462	28	16,793	14,866	31,659	18
TOTAL, PROVINCE OF ONTARIO	703,891	660,980	1,364,871	29	230,109	205,917	436,026	18

Source: Ontario Department of Education, Report of the Minister, 1966.

isolated centres are faced with the problems of obtaining teachers and coping with large teacher turnovers, the higher cost of student transportation, school construction and maintenance, and a narrow choice of courses offered.

Despite the problems of attracting and retaining teachers in Northeastern Ontario, student/teacher ratios in the region compare favourably with those of the province as a whole (see Table 3.7). In 1966, the elementary student/teacher ratio was 28:1 in Northeastern Ontario, compared to 29:1 in the province, and the secondary student/teacher ratio was 18:1 in both cases.

Health

Problems arising in the provision of health services in Northeastern Ontario are primarily related to the problems caused by a scattered population. Services such as sickness-prevention, nutrition, family planning and health education, influenced by socio-economic conditions, also have an important bearing on the overall health of the population.

Of the 34 general hospitals in Northeastern Ontario, 24 have less than 100 beds and of these, 15 have fewer than 50 beds. Many are in communities with a population of 2,000 or less and such small populations restrict the types of service which can be provided. Sophisticated services require a variety of specialist

facilities and personnel resources which cannot be made available in small centres.

In total, hospital services, based on the number of beds per 10,000 population, compare favourably with the province, except in the District of Sudbury. It should be noted, however, that hospital catchment areas do not correspond to political boundaries and that the number of beds needed per 10,000 population varies according to the age structure of the population served.

TABLE 3.8

HOSPITAL SERVICES, NORTHEASTERN ONTARIO

	1966			1969		
	Population	General Hospitals	Hospital Beds	General Hospitals	Hospital Beds	Beds** per 10,000 Population
Algoma	113,561	8	736	8	741	65
Cochrane	97,334	10	608	10	605	62
Manitoulin	10,544	2	73	2	74	70
Nipissing	73,533	4	396	4	526	72
Sudbury	174,102	6	866	6	869	50
Timiskaming	47,154	4	392	4	393	84
Northeastern Ontario	516,228	34*	3,071	34	3,208	62
Province of Ontario	6,960,870	272	44,607	278	46,786	67

* Includes 3 Red Cross Outposts.
** Number of beds in 1969 per 1966 population.

Note: Figures for T.B. patients are not shown. In 1967 there were 93 beds with an occupancy rate of 71.7 per cent.

Source: Ontario Hospital Services Commission, 1966 Annual Report, and Special Tabulation, April 1969.

The infant mortality rate, although only one measure, is usually considered a fairly good indicator of the health status of any community. In Northeastern Ontario it is considerably higher than in the province as a whole (see Table 3.9). Over the 1966-1968 period, in the region as a whole as well as in four of the six districts, the infant mortality rate was more than 10 per cent higher than the provincial average.

TABLE 3.9

INFANT MORTALITY, NORTHEASTERN ONTARIO

	1966		1967		1968		1966-1968
	Number	Rate*	Number	Rate*	Number	Rate*	Average Rate*
Algoma	55	22.2	59	25.1	58	24.1	23.8
Cochrane	31	15.4	42	21.8	47	23.9	20.4
Manitoulin	7	32.4	8	39.8	5	27.8	33.3
Nipissing	33	23.4	24	18.2	23	17.4	19.7
Sudbury	84	23.4	76	21.2	72	20.5	21.7
Timiskaming	22	27.8	26	33.3	20	25.0	28.7
Northeastern Ontario	232	22.1	235	23.1	225	22.1	22.4
Province of Ontario	2,669	20.2	2,515	19.7	2,395	19.0	19.6
Northeastern Ontario rate/ Province of Ontario rate		109.4		117.3		116.3	114.3

*Number of infant deaths per 1,000 live births.

Source: Ontario Department of Health.

There is also a shortage of medical and dental specialists outside of the largest urban centres in the region, and a shortage of general health personnel in remote areas. In some cases, where specialist facilities and personnel do exist, these services are not always used effectively. In 1966, as the table below shows, there were only 83 doctors per 10,000 population in the region compared to a provincial average of 132, and only 22 dentists per 10,000 population compared to 38 in the province as a whole.

TABLE 3.10

DISTRIBUTION OF DOCTORS AND DENTISTS, NORTHEASTERN ONTARIO, 1966

	Population	Doctors	Doctors per 10,000 Population	Dentists	Dentists per 10,000 Population
Algoma	113,561	94	83	28	25
Cochrane	97,334	67	69	17	17
Manitoulin	10,554	6	57	3	28
Nipissing	73,533	65	88	19	26
Sudbury	174,102	166	95	35	20
Timiskaming	47,154	32	68	10	21
Northeastern Ontario	516,228	430	83	112	22
Province of Ontario	6,960,870	9,174	132	2,616	38

Source: Ontario Medical Association.
Royal College of Dental Surgeons of Ontario.

Programs of guaranteed income for doctors and dentists, recently initiated by the Ontario Government, should help to alleviate the shortage in the region. In addition, steps have been taken

toward the regional organization of health services. The public health program is organized on an area basis and hospital planning councils are being set up. Five district health units and five hospital planning councils are in existence and one further hospital planning council is being formed.

Cultural and Recreational Facilities

The availability of cultural facilities can greatly contribute to a region's desirability as a place to locate a business or family. Although Northeastern Ontario has a small population of just over 500,000, widely dispersed in an area of over 120,000 square miles, it has cultural and recreational facilities which indicate that, as a whole, it is among the better provided in the province. However, the larger urban centres tend to have the widest variety of facilities, and these must also serve an extensive rural area. In terms of accessibility, therefore, the region is perhaps less well provided than might be desired.

Public Safety

The analysis of public safety in Northeastern Ontario concentrated in particular upon the incidence of accidents, crime and fire.

TABLE 3.11

AVERAGE ANNUAL TRAFFIC FATALITIES, NORTHEASTERN ONTARIO, 1961 TO 1966

	Number of fatalities per 100,000 vehicles
Algoma	89
Cochrane	151
Manitoulin	210
Nipissing	103
Sudbury	97
Timiskaming	66
Northeastern Ontario	104
Province of Ontario	62

Source: Ontario Office of the Registrar General, Vital Statistics, 1961-1966.
Ontario Department of Transport, Report of the Minister, 1961-1966.

The rate of traffic fatalities in Northeastern Ontario is very high. Some causes of this poor performance would appear to include fatigue, driver error, rugged terrain and a high proportion of rural roads as well as long distances between centres which leads to high speed travel. Other factors contributing to this high rate are poor mechanical fitness of cars in certain poorer parts of the region, such as the District of Manitoulin, the distance to hospitals and medical services, and the hazards created by the more severe climatic conditions prevalent in Northeastern Ontario.

Interest in recreational safety is now increasing. Although the number of drowning victims is relatively small, the record for Northeastern Ontario is considerably higher than for the province. Information on drownings is provided in Table 3.12 and for occupational and other accidents in Table 3.13.

TABLE 3.12

DROWNINGS IN NORTHEASTERN ONTARIO, 1961-1966

	Average number of drownings* per 1 million population
Algoma	124
Cochrane	114
Manitoulin	184
Nipissing	97
Sudbury	88
Timiskaming	61
Northeastern Ontario	102
Province of Ontario	47

Source: Ontario Office of the Registrar General, Vital Statistics,
Dominion Bureau of Statistics, Census of Canada, Population,

*Data do not include non-resident drownings.

With the exception of fatal industrial accidents, regional and provincial averages are similar. However, there is considerable variation among districts. Those with poor performance tend to specialize in mining and forestry operations. In recognition of the hazards inherent in these occupations both industry and

government have imposed stringent safety regulations. The main function of the Inspection Branch of the Ontario Department of Mines and Northern Affairs is to ensure compliance with the requirements of The Mining Act pertaining to the safety of operations in the mines, metallurgical plants, pits and quarries of the province. The Department of Lands and Forests ensures compliance with safety regulations through enforcement of The Logger's Safety Act.

TABLE 3.13

OCCUPATIONAL AND OTHER ACCIDENTS, NORTHEASTERN ONTARIO 1964-1968

	Average annual no. of fatal industrial accidents per 1 million labour force 1964-1968	Average annual no. of non-fatal accidents per 1,000 labour force 1964-1968	Other accidental deaths per 100,000 population 1966
Algoma	324	38	34
Cochrane and Timiskaming	396	61	53*
Manitoulin	129	18	28
Nipissing	213	43	34
Sudbury	272	55	35
Timiskaming	n.a.	n.a.	38
Northeastern Ontario	305	51	38
Province of Ontario	105	38	36

*Rate for Cochrane only

Source: Ontario Workmen's Compensation Board, Special Tabulation, 1964-1968
Ontario Office of the Registrar General, Vital Statistics, 1966.

Crimes, recorded by place of occurrence rather than place of residence are summarized in Table 3.14. In examining the type of criminal occurrences in the region and the province as well as among the districts of Northeastern Ontario, noticeable differences were found. The incidence of most crimes was higher in the province than in any of the districts in Northeastern Ontario. The proportion of traffic violations however, especially driving while impaired, was higher in Northeastern Ontario than in the province. Scattered urban settlements and the large distances between them have necessitated a higher ratio of police to population.

TABLE 3.14

AVERAGE NUMBER OF CRIMES IN NORTHEASTERN ONTARIO, 1967-1968

	Number of reported crimes per 1,000 population	Number of police per 1,000 reported crimes	Number of police per 100,000 population
Algoma	29	76	219
Cochrane	26	61	162
Manitoulin	n.a.	n.a.	209
Nipissing	36	54	194
Sudbury	31	48	149
Timiskaming	19	140	265
Northeastern Ontario	29	63	185
Province of Ontario	49	33	164

Source: Ontario Department of Justice, Ontario Police Commission Report, 1967-1968 Special Tabulation.

The region as a whole compares favourably in terms of the number of fires per 1,000 dwellings, and the number of fires per 100,000 population. In terms of fatalities and property damage, however, Northeastern Ontario's performance compares unfavourably with that of the province. Inadequate safety standards for existing houses, and the difficulty of providing adequate fire protection to outlying areas explain this poor record.

Wherever urban centres predominate, rationalization of fire fighting services has followed (see Table 3.15). It has, therefore, been possible to achieve increased efficiencies through the use of full-time firemen, and a more intensive use of the facilities.

TABLE 3.15

FIRES IN NORTHEASTERN ONTARIO, 1965 TO 1969

	Average annual No. of fires per 1,000 dwellings 1965-1969	Average annual No. of fires per 100,000 population 1965-1969	Average annual No. of fatalities from fire per 1 m.[1] population 1965-1969	Average annual $ value of property damage per dwelling 1965-1969	No. of firemen per 1,000 population 1969	No. of firemen per 100,000 population 1969
Algoma	11	273	53	36	958	262
Cochrane	9	224	31	38	1,509	338
Manitoulin	4	95	285	6	4,400	417
Nipissing	12	286	41	27	776	222
Sudbury	9	214	40	41	1,602	342
Timiskaming	9	240	42	37	2,558	613
Northeastern Ontario	10	239	46	36	1,393	333
Province of Ontario	11	296	31	25	952	282

[1] million

Source: Ontario Department of Justice, Annual Report of the Fire Marshall, 1969

CHAPTER IV

THE ECONOMIC BASE

Introduction

It has been stated that the economy of Northeastern Ontario rests on a narrow economic base, characterized generally by slow growth. For purposes of analysis, the economic activities of the region have been divided into those industries producing for the export market and those producing for the local market. Location Quotients[1] were used to determine whether an industry should be classified as producing for export (basic) or for local (non-basic) markets. Forestry, mining and related manufacturing activities were definitely basic industries. In addition, the service category of hotels, restaurants and taverns was also considered basic and representative of the tourist industry. Transportation, communication and utilities also had a location quotient greater than one, but it was considered that this was due to the scattered settlement pattern, necessitating a larger than normal infrastructure, rather than to the nature of the industry in the region. It was therefore considered as a non-basic activity.[2] All other sectors were regarded as non-basic.

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[1]A ratio between the percentage of the labour force in a certain industry in the region and the percentage of the labour force in the same industry in the province. A figure greater than unity (1=average) indicates that the activity is of greater importance to the region than it is to the province.

[2]Although transportation, communication and utilities as a sector is considered non-basic, the transportation industry clearly serves provincial and national needs, inasmuch as Northeastern Ontario is situated astride Canada's east-west traffic corridor. Moreover, the transportation industry derives considerable income from outside the region.

TABLE 4.1

INDUSTRIAL COMPOSITION OF THE LABOUR FORCE - NORTHEASTERN ONTARIO AND PROVINCE OF ONTARIO

	Northeastern Ontario					Province Of Ontario				
	1951		1961		1961/1951	1951		1961		1961/1951
Industry Division	No.	%	No.	%	% Change	No.	%	No.	%	% Change
Basic Labour Force										
Forestry	9,899	7.3	7,940	4.8	-19.8	23,030	1.2	17,935	0.7	-22.1
Mining	24,546	18.2	31,789	19.0	29.5	30,653	1.6	42,660	1.8	39.2
Basic Manufacturing*	22,950	17.0	21,350	12.8	-7.0	118,149	6.3	124,154	5.2	5.1
Basic Services**	3,980	3.0	7,041	4.2	76.9	44,358	2.4	75,950	3.2	71.2
Total Basic	61,375	45.5	68,120	40.8	11.0	216,190	11.5	260,699	10.9	20.6
Non-Basic Labour Force										
Agriculture	9,254	6.9	5,140	3.1	-44.5	201,482	10.7	168,775	7.1	-16.2
Fishing and Trapping	410	0.3	157	--	-61.7	2,259	0.1	2,185	--	-3.3
Non-basic Manufacturing	6,474	4.8	5,832	3.5	-9.9	497,209	26.4	519,130	21.7	4.4
Construction	8,946	6.6	10,162	6.1	13.6	127,494	6.8	153,866	6.4	20.7
Transportation, Communication and Utilities	14,715	10.9	17,160	10.3	16.6	158,125	8.4	195,223	8.2	23.5
Trade	14,112	10.5	21,825	13.1	54.7	267,267	14.2	370,540	15.5	38.6
Finance, Insurance and Real Estate	1,790	1.3	3,239	1.9	80.9	61,728	3.3	98,454	4.1	59.5
Non-basic Services	16,222	12.0	30,483	18.2	87.9	334,771	17.7	572,440	23.9	71.0
Industry Not Stated	1,670	1.2	4,920	2.9	194.6	18,416	0.9	51,703	2.2	180.7
Total Non-Basic	73,593	54.5	98,918	59.2	34.4	1,668,751	88.5	2,132,316	89.1	27.8
Total Labour Force	134,968	100.0	167,038	100.0	23.8	1,884,941	100.0	2,393,015	100.0	27.0

*Wood Industries and Furniture; Pulp and Paper; Primary Metals.
**Hotels, Restaurants and Taverns.

-- Under 0.1 per cent.

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.
Estimates of the Regional Development Branch, Department of Treasury and Economics.

The location quotients for 1961 were as follows:

Agriculture	0.4
Forestry	6.9
Fishing and Trapping	--
Mines, Oil Wells, Quarries	10.6
Manufacturing - Wood Products, Pulp and Paper, Primary Metals	2.5
- Other	--
Construction	0.9
Transportation, Communication, Utilities	1.3
Trade	0.8
Finance, Insurance, Real Estate	0.5
Personal Services - Hotels, Restaurants, Taverns	1.3
- Other	0.6
Industry Not Stated	1.3

-- Under 0.1

Basic Industries

The performance of the basic industries identified has been in large part a function of the following factors:

i Continued availability of natural resources
ii Changes in technology and innovation
iii Changes in the terms of trade
iv Income elasticity of the major products of the region[3]
v Changes in the competitive position of the region's export industries vis-a-vis similar producers elsewhere
vi Emergence of substitutes

It should be noted that all of factors (iii) to (vi) can be considered as exogenous to the regional economy, and cannot be controlled or altered through regional measures alone. The interrelationships of all of the above mentioned factors, however, determine

[3]Income elasticity measures the responsiveness of the quantity demanded to changes in income. A figure greater than one indicates that as income increases, a higher proportion is being spent on the commodity in question.

to a large extent whether a region will continue to prosper, or whether it will enter a period of stagnation and decline. Ample evidence of how a declining or stagnating export base can affect the economic performance of a region is available.

Northeastern Ontario relies very heavily upon its basic industries. Included in this sector are mining and mine-based activities, forestry and forest-based activities, and tourism. Of these three, the first two are by far the most important. They often provide the only source of employment for many communities. Their importance to the region cannot, therefore, be over-estimated. Tourism on the other hand, while important in a number of communities, has not as yet attained the predominance of mining and forestry.

A. Mining and Mine-Based Industries

The mining industry has formed the basis of economic development in Northeastern Ontario since the opening of the Bruce Mines (copper) in the District of Algoma in 1846. In 1883 large deposits of copper were discovered at Sudbury; in 1887 it was found that these deposits contained nickel as well as copper. Since then, the extraction of minerals has become a vital part not only of the economy of Northeastern Ontario but also of Canada. Mining and its associated industries will continue to be the most important activity in the determination of growth in Northeastern Ontario.

The competitive position of Northeastern Ontario is generally favourable. The region is rich in minerals such as nickel, copper,

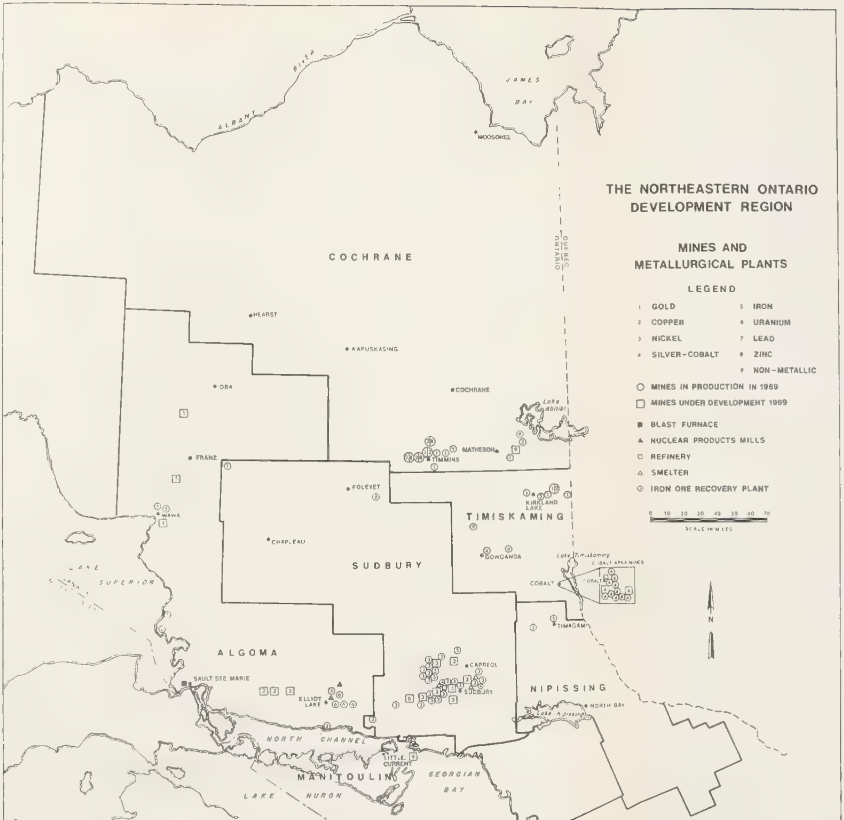


Figure 11

REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

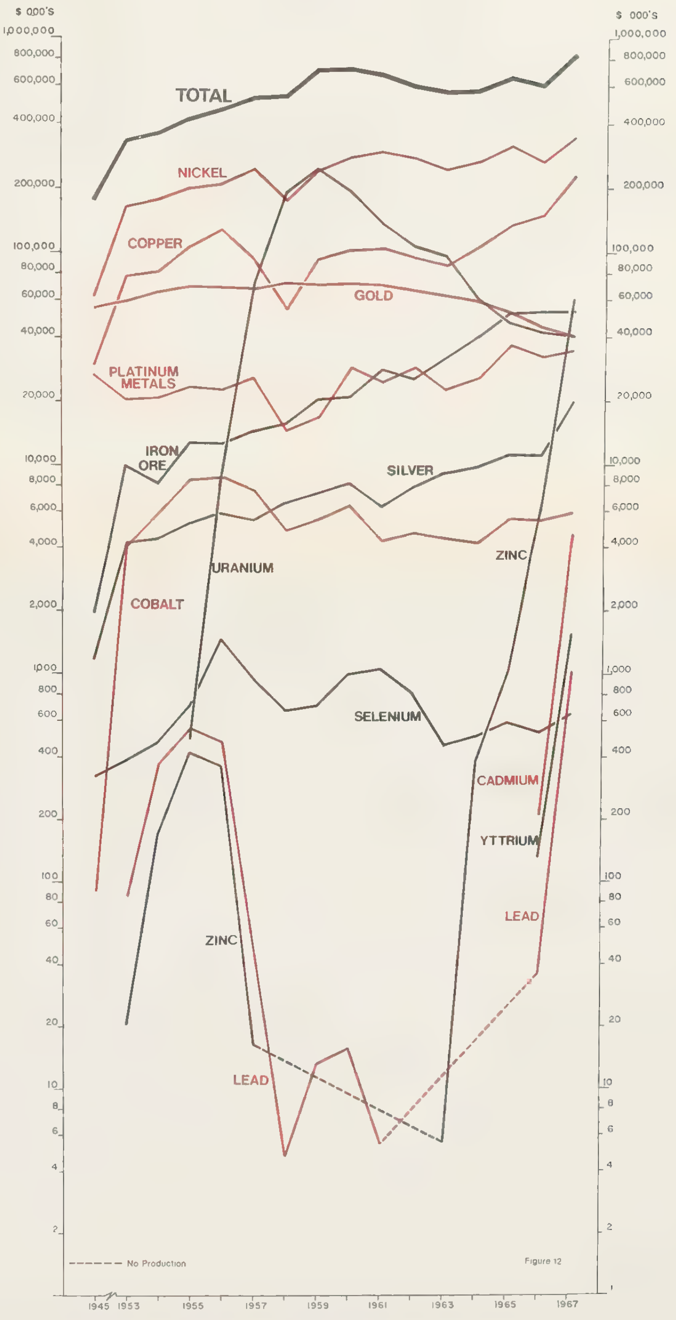
iron, lead, zinc and uranium, all of which are in great demand. In addition, it is in close proximity to the United States, probably the largest world market for these minerals, and is relatively accessible to European and Japanese markets. The stable economic situation in Canada, compared to such areas as South America, Africa and Asia, is also an advantage. The greatest challenge to this relatively superior position of Northeastern Ontario lies in Australia, where vast deposits of a similar nature are now being brought into production.

The mining industry is becoming increasingly capital intensive. As a result, employment is likely to increase at a slower rate than either volume or value of production. However, this continuing improvement in productivity allows the mining companies to extract increasingly lower-grade ore at a profit. Such improvements are absolutely essential to the growth of the mining industry. Nevertheless, while these advances have allowed the industry to remain competitive, they have also required an even higher capital:labour ratio. This is beneficial from a provincial and a national viewpoint, but often causes structural unemployment with a specific locational and sectoral impact.

A continued increase in the output of all minerals, other than gold, can be expected in Northeastern Ontario. There is, however, considerable doubt as to whether this overall increase will be of sufficient magnitude to employ much of the additional manpower entering the labour pool of the region. However, it is anticipated

NORTHEASTERN ONTARIO DEVELOPMENT REGION

VALUE OF PRODUCTION, METALLIC MINERALS 1945-1967



SOURCES Department of Treasury and Economics Regional Development Branch Special Tabulation
Ontario Department of Mines, Annual Report 1945-1967

that new mine-based industries will be established in the region. This should be sufficient to employ any surplus labour.

Nickel The production of nickel in Northeastern Ontario has been confined to the Sudbury area. In 1967, the International Nickel Company of Canada Limited employed 17,962 workers and Falconbridge Nickel Mines Limited 3,556. This includes employment in all phases of operation such as mining, milling, smelting and refining.

Nickel mining operations in the Sudbury Basin have remained very profitable, despite substantial increases in wage and supply costs. In 1968, on sales of $105.2 million, Falconbridge made an operating profit (before provision for depreciation and development) of $26.7 million. Total earnings after taxes were $24.0 million.[4] While this was down from 1967, for the first six months of 1969 profits were a record $21.1 million.[5] This was the result of both substantial increases in the production of nickel and copper, and rising prices. The situation is much the same at International Nickel where total net earnings in 1968 were $143.7 million or 18.7 per cent of sales.[6]

It is estimated that present expansion plans will increase employment in nickel mining by approximately 2,500 by 1976.

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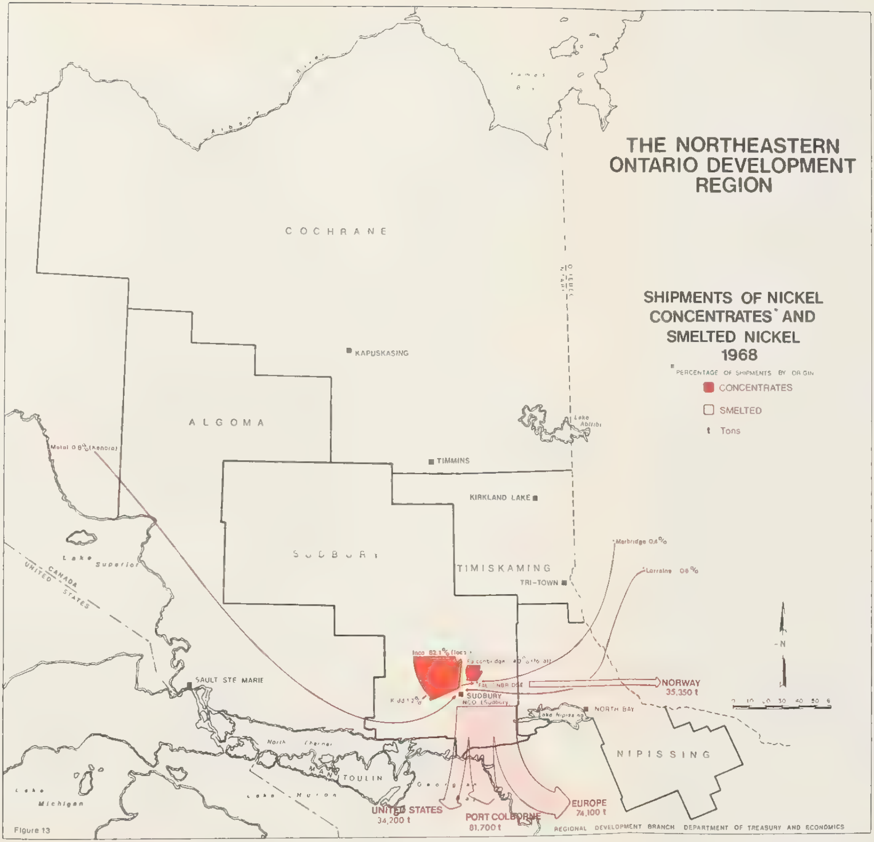
[4]Falconbridge Shareholders' Report, 1968.

[5]Globe and Mail, August 26, 1969, P. B1.

[6]International Nickel Shareholders' Report 1969.


THE NORTHEASTERN ONTARIO DEVELOPMENT REGION
SHIPMENTS OF NICKEL CONCENTRATES* AND SMELTED NICKEL 1968
* PERCENTAGE OF SHIPMENTS BY ORIGIN
CONCENTRATES
SMELTED
t Tons
COCHRANE
ALGOMA
SUDBURY
TIMISKAMING
NIPISSING
MANITOULIN
KAPUSKASING
TIMMINS
KIRKLAND LAKE
TRI-TOWN
SAULT STE MARIE
SUDBURY
NORTH BAY
Lake Superior
Lake Huron
Lake Michigan
Lake Abitibi
CANADA
UNITED STATES
NORWAY
35,350 t
EUROPE
74,100 t
UNITED STATES
34,200 t
PORT COLBORNE
81,700 t
Marbridge 0.4%
Lorraine 0.8%
N
Figure 13
REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

<u>Copper</u> Copper mining in Northeastern Ontario, while much overshadowed by nickel, has increased its importance markedly in recent years, and is now the second most important mineral in terms of value of production. In 1968, its value of production was $246.0 million or 25 per cent of the total value of all minerals.

Most of the copper comes from the Sudbury Basin, but in recent years the Timmins area has become an important source of this metal. The value of copper produced in the District of Cochrane rose from $1.7 million in 1961 to $64.9 million in 1968.

The variability in the price of copper makes it difficult to predict the future of copper not only in the Northeastern Ontario Region, but in Canada as a whole. The existing situation seems favourable, however, with most copper mining activities increasing both production and employment.

Steady growth of the well established copper mines in the Timmins, Timagami, Spragge and Batchawana Bay areas, combined with the development of four promising properties in the Sudbury and Algoma districts, could lead to substantial increases in both output and employment in Northeastern Ontario. If present trends continue, by 1976 total employment could increase by 700, over a 1969 level of 1,700[7]. In addition, mines may be reactivated at

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[7]This includes 670 employed with Ecstall Mining Limited at Kidd Creek Mine near Timmins. The mine also produces zinc and lead.

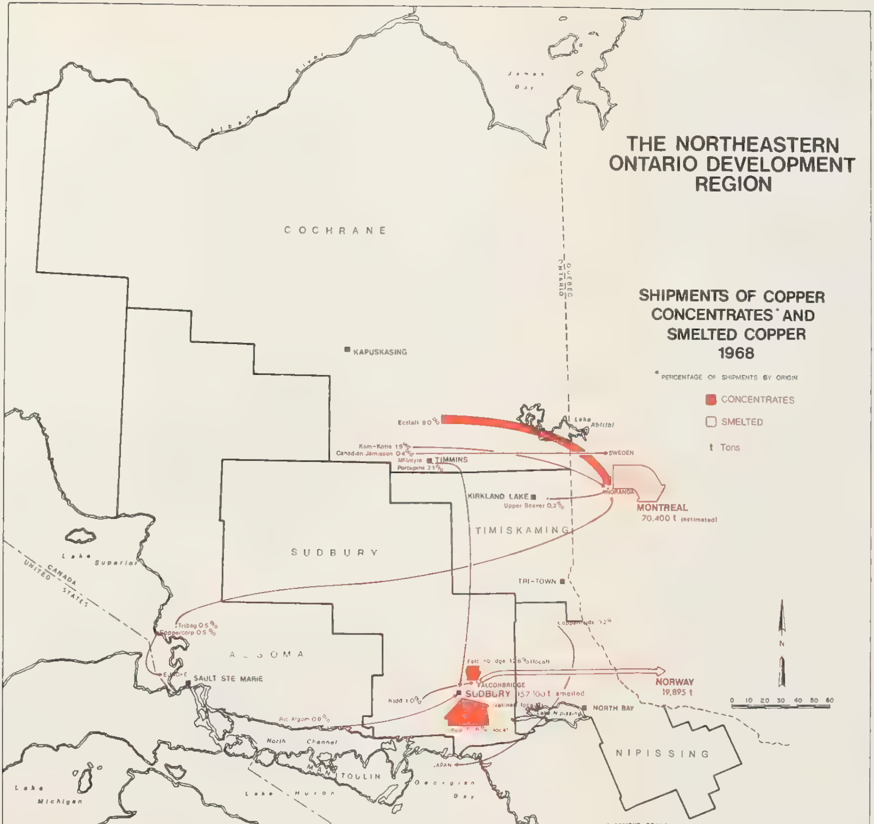


Figure 14

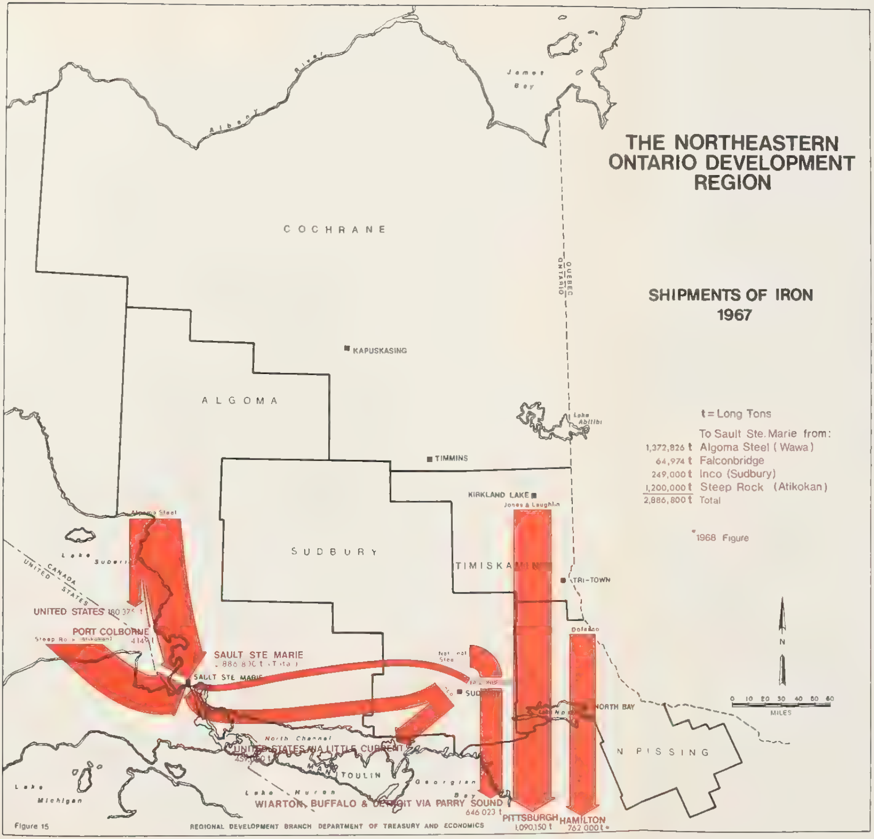
REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

Matheson and Bruce Mines, and new mines may come into production elsewhere. By 1981, employment in copper mines in Northeastern Ontario could increase by well over 1,000.

It is impossible to say with any accuracy which areas have the greatest potential for copper discoveries. Technological advances are permitting the exploitation of ores that previously were considered either valueless or as the source of another metal. However, since all types of precious metals occur most frequently in the complex "greenstone" formations of Northeastern Ontario, there is a tendency for mining exploration to concentrate in previously mined areas. A combination of new mining and refining methods and a favourable market outlook could lead to the opening of mines which were closed in the 1930's. New copper developments are, therefore, most likely to take place in old producing regions such as Sudbury, Kirkland Lake and Timmins and also in the vicinity of Espanola and Sault Ste. Marie, where many copper occurrences have been recorded.

Iron Ore The 1960's saw iron emerge as one of the most important base metals of the Northeastern Ontario Region. The volume of production more than doubled between 1960 and 1968. The importance of iron mining to the region is now overshadowed only by that of nickel and copper.

There are currently four iron mines in Northeastern Ontario. All are large operations, the smallest being the National



THE NORTHEASTERN ONTARIO DEVELOPMENT REGION
SHIPMENTS OF IRON 1967
James Bay
Albany River
COCHRANE
ALGOMA
SUDBURY
TIMISKAMING
N PISSING
MANITOULIN
KAPUSKASING
TIMMINS
KIRKLAND LAKE
TRI-TOWN
NORTH BAY
SAULT STE MARIE
Lake Abitibi
QUEBEC
ONTARIO
CANADA
UNITED STATES
Lake Superior
Lake Michigan
Lake Huron
North Channel
Georgian Bay
Algoma Steel
Jones & Laughlin
Dofasco
t = Long Tons
To Sault Ste. Marie from:
1,372,826 t Algoma Steel (Wawa)
64,974 t Falconbridge
249,000 t Inco (Sudbury)
1,200,000 t Steep Rock (Atikokan)
2,886,800 t Total
*1968 Figure
UNITED STATES
PORT COLBORNE
SAULT STE MARIE
UNITED STATES VIA LITTLE CURRENT
WIARTON, BUFFALO & DETROIT VIA PARRY SOUND
646 023 t
PITTSBURGH
1,090,150 t
HAMILTON
762 000 t*
N
0 10 20 30 40 50 60
MILES
REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

Figure 15

Steel Corporation of Canada Limited at Moose Mountain north of Capreol, employing approximately 275 people.

The Sherman mine of Dofasco at Timagami employs 324 people and the Adams Mine of Jones and Laughlin Mining Corporation Limited near Kirkland Lake, 435. Algoma Steel Corporation Limited operates mines at Wawa and blast furnaces, a refinery and steel mills at Sault Ste. Marie. Employment in the mines (including mills and concentrators at Wawa) is approximately 800, although this number may vary.

Because of high capital costs involved in bringing an iron mine into operation, development of iron mining must usually await a reliable and suitable market. This type of market structure has encouraged the integration of iron mining and related manufacturing. Small independent mining companies, unable to finance the large capital investment required, must find a major steel producer willing to finance the project, or even take majority control. As a consequence, almost all iron mines in Northeastern Ontario are owned or controlled by large integrated steel producers. While this ensures the mine of a stable market, the mine itself does not have the option of extending or capturing new markets. The success of each iron mine is, therefore, very closely linked to the success of the company by which it is controlled or owned.

The future of iron mining may not be as favourable in the 1970's as it was in the 1960's. Because of the prosperity and the pace of industrialization in the sixties, the steel industry had to develop

new sources of iron ore. The resulting expansion will probably be sufficient to satisfy demand for some years. A lull in activity can therefore be expected.

The long-term future of the iron and steel industry in Northeastern Ontario is more difficult to assess. Although world demand will likely continue to grow at a steady rate, the competitive position of Canadian producers may cause other areas of the world to increase their penetration of Canadian markets. Recent wage settlements have substantially reduced the cost advantage of Canadian producers over those in the United States, and the proposed federal tax changes could further adversely affect their competitive position.

Gold Gold mining, once so important in the economic development of Northeastern Ontario, was eighth in value of production in 1968.

The future of the gold mining industry appears uncertain. Of eight mines which closed in Ontario in 1968, four were gold mines. All four were in the Northeast; all four were long established. While gold mining employed approximately 10,000 people in 1958, only 4,700 were so employed ten years later. This decrease occurred almost exclusively in the traditional gold mining communities of Kirkland Lake and Timmins. Employment in Timmins declined from 6,198 in 1958 to 3,054 in 1968. The drop in the Kirkland Lake area has been even more dramatic. Employment there decreased from 3,598 to 1,349 over the same period. Unless the price of gold is increased

by monetary authorities, this decline may continue. If the decline of 5.8 per cent per annum were projected forward, gold mining employment in Northeastern Ontario would decline to approximately 3,900 in 1971, 3,400 in 1976 and 2,500 in 1981.

TABLE 4.2

GOLD EMPLOYMENT AND PRODUCTION, NORTHEASTERN ONTARIO

	Employment	Production	
		Troy oz.	$ million
1953	9,086	1,728,612	59.5
1954	9,399	1,914,441	65.2
1955	9,317	2,010,357	69.4
1956	9,366	1,992,650	68.6
1957	9,873	2,015,695	67.6
1958	10,001	2,118,647	72.0
1959	9,984	2,089,067	70.1
1960	9,831	2,106,646	71.5
1961	9,375	1,995,690	70.8
1962	8,901	1,771,438	66.3
1963	8,577	1,671,177	63.1
1964	8,111	1,568,426	59.2
1965	6,979	1,404,396	53.0
1966	6,084	1,190,917	44.9
1967	5,471	1,068,027	40.3
1968	4,700	986,361	37.2

Source: Employment - Ontario Department of Mines, Annual Reports.

Production - Regional Development Branch, Department of Treasury and Economics.

The major reasons for this decline have been rising operating costs and diminishing ore reserves. Shortages of skilled labour, high labour turnover, inexperienced replacements and absenteeism also appear to be important factors.

A further decline in gold mining could adversely affect Timmins and Kirkland Lake. However, neither of these communities is now exclusively dependent on gold mining and this may to some extent alleviate problems occurring in this transitional period. In the case of Timmins, the emergence of base metal operations should help to reduce the impact of any further decline in gold mining.

Uranium The growth and subsequent decline of the uranium industry is undoubtedly the most spectacular development in Northeastern Ontario within the last 50 years.

The first production was recorded in 1955 and had a value of less than $500,000. Employment in that year was 379. Of these, 224 were at Pronto Uranium in Spragge Township and 155 at Algoma Uranium near Elliot Lake (see Table 4.3).

Within the year, the value of production increased to $9.4 million and employment rose to 1,462. The following year, 1957, saw employment triple and output increase to $71.5 million. The next two years showed remarkable expansion and in 1959 uranium production in the Northeastern Ontario Region reached a peak of 23.4 million pounds with a value of $246.2 million. Employment was 9,633, down slightly from the previous year's 9,986.

TABLE 4.3

URANIUM PRODUCTION, NORTHEASTERN ONTARIO

	Pounds	Value - $ million
1955	n.a.	0.5
1956	906,614	9.4
1957	6,891,376	71.5
1958	18,143,987	191.2
1959	23,363,077	246.2
1960	18,201,443	195.3
1961	13,498,946	136.3
1962	11,416,890	106.6
1963	11,660,495	96.1
1964	11,414,329	61.4
1965	6,825,046	47.2
1966	5,875,074	42.8
1967	5,450,639	41.4
1968	5,361,460	39.2
1969	6,150,215	38.8

Source: Regional Development Branch, Department of Treasury and Economics.

Ontario Department of Mines, Annual Reports, 1955-1968 and Review, 1969.

After 1959, there was a rapid decline in the value of production; in 1969 the value of production in the Northeast was $38.8 million. Prices and production have both contracted: in 1969 total production was only 6.1 million pounds or slightly more than a quarter of the 1959 level; and the value per pound, which had been $10.53 in 1959, was $7.26.

A major reason for the sharp rise and subsequent fall lies in the purchase pattern of the United States. Having built up a stock pile, it decided to cut back on its rate of purchase. Out of consideration for the financial position of the industry, the United States agreed to reduce purchases over a period of

some years rather than cut them off at once; despite this, the fall in production has been very rapid. (For the province, the annual rate of decline was over 20 per cent between 1959 and 1968.)

Estimated future world consumption of uranium has led to a considerable upsurge of optimism among world producers (see Table 4.4). Orders already placed with the mining companies for future delivery, together with present expansion plans, indicate that the Northeastern Ontario uranium industry will fully benefit from this rapid increase in projected demand. Rio Algom has orders from the United Kingdom Atomic Energy Authority, Ontario Hydro and eight Japanese electric utilities. Denison Mines has contracts with Japan and anticipates substantial American sales. Lake Agnew Mine and Stanrock Mines are also scheduling production to commence in the early 1970's. On this basis we can expect employment in uranium mining to be in the 4,100 to 4,500 range by 1976.

These employment estimates are based on the assumption that the uranium producers of Northeastern Ontario are in a position to supply these future requirements. Their demonstrated ability to compete ensures them of a fair share of new customers, while they will continue to benefit from the increasing needs of their established customers. A favourable political climate is also essential to the future growth of uranium production. The development of the uranium industry in Northeastern Ontario may depend to some extent on the future policies of the federal government regarding the mining and marketing of Canadian uranium.

TABLE 4.4

ESTIMATED ATOMIC POWER-PLANT CAPACITIES AND URANIUM NEEDED

	Installed nuclear capacity	Annual U_3O_8 requirements	Cumulative U_3O_8 requirements
1970	MWe	short tons	short tons
United States	10,000	11,300	11,300
United Kingdom	5,500	4,100	4,100
Western Europe	4,700	3,200	3,200
Japan	1,300	600	600
Other	800	600	600
Total	22,300	19,800	19,800
1975			
United States	67,000	18,600	96,200
United Kingdom	14,400	4,600	25,900
Western Europe	24,600	9,200	40,100
Japan	7,400	3,300	11,800
Other	7,000	2,500	9,600
Total	120,400	38,200	183,600
1980			
United States	150,000	37,200	240,000
United Kingdom	25,000	5,900	52,700
Western Europe	65,000	18,100	113,300
Japan	22,000	6,000	35,500
Other	22,000	4,700	30,700
Total	284,000	71,900	472,200

Source: *Northern Miner*, Jan. 1, 1970, citing estimates by Rio Algom Mines, November 1969.

Other Minerals The only other minerals of importance to the economy of Northeastern Ontario are zinc, silver, cobalt and asbestos.

Zinc is presently being mined by the Texas Gulf Sulphur Company's wholly owned subsidiary, Ecstall Mining Limited, at its Kidd Creek Mine near Timmins. Copper, silver and lead are also extracted from this mine. The company has announced plans to build an electrolytic zinc and sulphuric acid plant at a cost of more than $50 million. It is scheduled to come into operation in early 1972 and will require approximately 300 employees.

Jameland Mines Limited brought a zinc mine into operation at Timmins in late 1969. The indicated ore reserves of this mine are approximately 750,000 tons. This would suggest that production will be on a limited scale only.

Silver is being increasingly obtained as a by-product of base metal operations. The major silver producing areas of North-eastern Ontario are Timmins, Sudbury and Cobalt-Gowganda. A growing output is currently coming from the Timmins and Sudbury areas, while the silver mines in the Cobalt-Gowganda area have maintained their output at approximately four million ounces per annum. As a result of higher silver prices, various companies operating in the Cobalt-Gowganda camp are examining the possibility of reprocessing mill tailings.

Asbestos and Cobalt are other minerals produced in some quantity in Northeastern Ontario. Cobalt is recovered as a by-product of the smelting and refining of silver-cobalt concentrates from mines in the Cobalt-Gowganda area. Asbestos production is

confined to the Timmins and Matheson areas. A limited expansion of asbestos production may be anticipated. The impact on the region, however, will be minimal.

Future Employment in Mining and Mine-Based Industries With increased production anticipated for most of the major minerals in Northeastern Ontario, mining will remain important to the regional economy. Total employment in mining and mine-based activities will reach an estimated 51,845 in 1976 and 54,675 in 1981, increases of 22.5 and 29.9 per cent, respectively, over the 1967 level of 42,328. Of the mining and mine-based communities, Sudbury, Sault Ste. Marie and Elliot Lake should be affected most favourably. Despite this increase, however, mining and mine-based activities are expected to employ a smaller proportion of the total labour force, since other sectors, especially tertiary industries, will continue to increase their share of total employment.

B. Forestry and Forest-Based Industries

Forestry and forest-based manufacturing industries have long been a major factor in the development of the Northeastern region, providing direct employment and stimulating supporting industries and services. In addition, forest access roads have made other important resources accessible and have aided the development of the tourist and recreation industry.

Northeastern Ontario has 50 per cent of the province's merchantable timber, but only 21 per cent of its total employment in forestry and forest-based industries.

Figure 16
Regional Development Branch, Department of Treasury and Economics

Forestry As a source of employment in Northeastern Ontario the forestry sector showed a substantial decline of almost 20 per cent during the period 1951-1961. By comparison, during the 1950's reductions in employment of 43 per cent, 73 per cent and 6 per cent were experienced in sawmills, in sash, door and planing mills and in pulp and paper mills, respectively. Many small and generally inefficient sawmilling operations closed down or were consolidated into large plants outside the region; mechanization allowed fewer men to provide the additional pulpwood necessary for the pulp and paper mills.

The downward trend in employment in forestry was not peculiar to Northeastern Ontario but because of the importance of forestry to the economy of the Northeast, the decline had far more impact and has been harder to absorb than in other parts of the province.

TABLE 4.5

LABOUR FORCE IN FORESTRY, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951		1961		
	No.	% of total labour force	No.	% of total labour force	1961/1951 % change
Algoma	1,558	6.3	1,148	3.0	- 26.3
Cochrane	3,805	12.4	3,345	10.7	- 12.1
Manitoulin	321	8.6	230	7.1	- 28.4
Nipissing	1,013	5.9	927	4.2	- 8.5
Sudbury	2,140	5.3	1,538	2.8	- 28.1
Timiskaming	1,062	5.9	752	4.5	- 29.2
Northeastern Ontario	9,899	7.3	7,940	4.8	- 19.8
Province of Ontario	23,030	1.2	17,935	0.7	- 22.1

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.

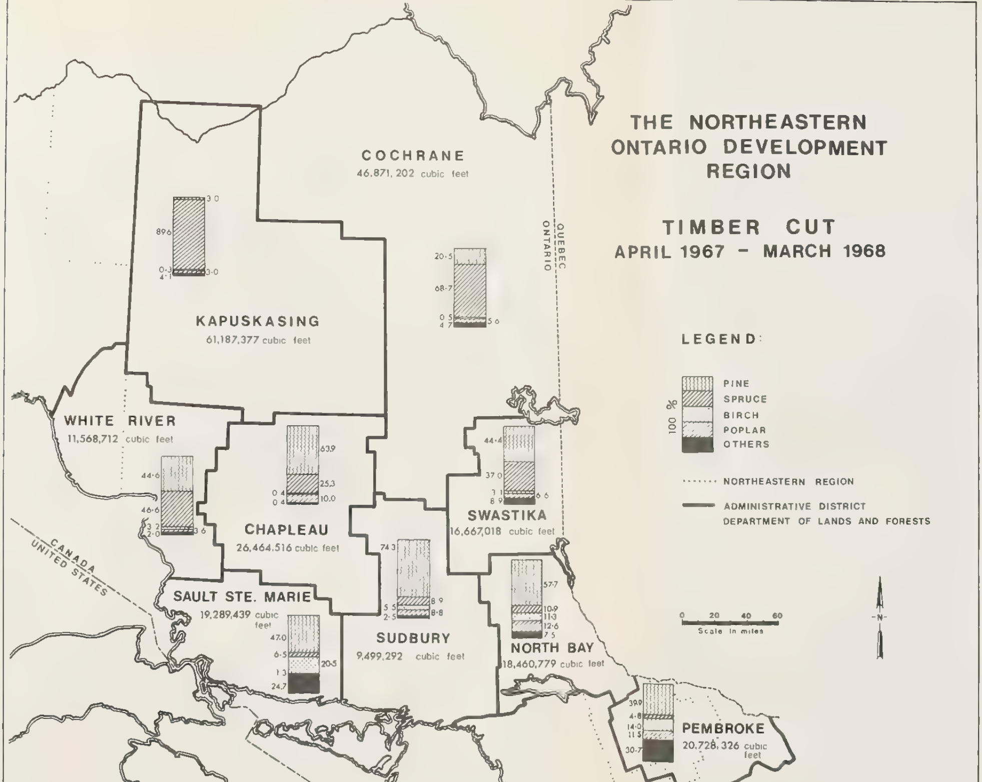


Figure 17

REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

Source Statistics, 1970, Department of Lands and Forests

Logging employment decreased by 38 per cent from 1961 to 1968. However, timber officials are of the opinion that this decline has stabilized. Consequently, only a relatively slight reduction in woodcutting employment is anticipated over the next ten years, a result of increasing production and a diminishing rate of mechanization. Nevertheless, the future of forestry in Northeastern Ontario is largely dependent upon developments in forest-based or wood-using industries.

Forestry is likely to continue as a major source of employment and income for the Northeastern Ontario Region although it is unlikely to be a stimulating force in the economy.

Forest-Based Industries Following a substantial decline during the 1950's, employment in forest-based industries has now stabilized. In contrast, value added showed a large increase of 59.2 per cent between 1961 and 1966. This large increase has been due mainly to increased productivity through mechanization and a more intensive exploitation of forest resources.

A. Wood Industries Between 1961 and 1966, the growth in the region's employment in the wood industries was only 10.5 per cent compared with a 26.3 per cent growth in the province as a whole. Considering the importance of the wood industries to the Northeastern region, this small increase in employment is not sufficient to ensure self-sustained growth.

TABLE 4.6

WOOD INDUSTRIES, NORTHEASTERN ONTARIO, EMPLOYEES AND VALUE ADDED, 1961 AND 1966

	Employees			Value Added ($000)		
	1961	1966	% change	1961	1966	% change
Saw and Planing Mills	2,899	3,113	7.4	13,888	24,085	73.4
Veneer and Plywood	685	992	44.8	4,404	7,650	73.7
Other	316	156	-50.6	2,847	1,852	-35.0
Furniture	30	81	170.0	246	615	150.0
Total	3,930	4,342	10.5	21,385	34,202	59.9

Source: Dominion Bureau of Statistics, Census of Manufactures, 1961 to 1966.

TABLE 4.7

WOOD INDUSTRIES, NORTHEASTERN ONTARIO, EMPLOYEES BY DISTRICT, 1966

	% of wood industry employees	% of all manufacturing employees
Algoma	37.8	10.7
Cochrane	18.5	15.2
Manitoulin	-	-
Nipissing	21.7	30.3
Sudbury	15.1	4.8
Timiskaming	6.9	28.1
Northeastern Ontario	100.0	11.3

Source: Pay Research Analysis Branch, Department of Labour, Ottawa.

(i) Sawmilling Following its rapid decline in the 1950's, this industry appears to have stabilized. Substitute building materials and the relative scarcity of good hardwood for lumber purposes, however, have had an impact on recent developments in the sawmilling industry. In addition, increased labour costs and greater insistence on quality control have increased the need for fewer but larger mills, with more integrated operations.

Further integration of forest operations could lead to lower harvesting costs. Improved road networks permit year-round hauling, reduce millsite inventory requirements and provide stabilization of employment. If harvesting, transportation and manufacturing costs could be reduced, additional markets might be opened up to utilize the available timber supplies.

The whole of eastern Canada is at a competitive disadvantage with British Columbia in the marketing of lumber. In spite of the economic boost recently given to sawmills with the development of markets for wood residues, the sawmill industry in Northeastern Ontario is unlikely to increase its employment or production substantially.

(ii) Plywood and Veneer, Particle Board The plywood and veneer sector of the wood industries seems to have the most promising future in Northeastern Ontario. The industry has shown almost a 45 per cent increase in employment over the period 1961-1966, accompanied by a 74 per cent increase in value added.

These three materials are used increasingly in construction

and production is likely to respond to the expected increase in housing construction.

(iii) Secondary Wood Industries The production of furniture is presently of little importance in Northeastern Ontario. The problems and costs of transporting the bulky finished items to the consumer market tend to outweigh the advantages of a readily available supply of raw materials in the region.

In the future there is a possibility of manufacturing furniture components in Hearst and consideration is being given to the production of additional wood-finished items in Timiskaming.

The Future of Wood Industries Future market conditions appear favourable for lumber, plywood, particle board and other wood products. Residential construction, the largest consumer of wood products, appears to be on the threshold of a prolonged wave of unusually high activity.

With the full implementation of Kennedy Round tariffs, all lumber products enter the United States duty free. However, in 1966, Ontario accounted for only six per cent of the exports of Canadian sawmill products.

British Columbia, because it enjoys so many clear-cut advantages, will more than likely obtain the major share of the growing demand for Canadian sawmill products. Production in Northeastern Ontario can meet increasing demands from this limited market by improving manufacturing efficiency through mechanization. The establishment of a poplar dimension stock sawmill is being considered for Northeastern Ontario.

The future potential for plywood and veneer is highly

promising but again British Columbia will probably capture the major share of the market. However, there does seem to be a future for Northeastern Ontario in the production of hardwood plywood. Ontario's hardwoods are much better in size and quality than those found in British Columbia, and nearly half of the merchantable hardwoods in Ontario are found within the Northeastern region. Northern hardwoods have become important with the introduction of new technology and products. Private and public interest has been shown in the utilization of these hardwoods. The processing of hardwoods would involve greater labour input and could, therefore, help to alleviate unemployment. Finally, the 50 per cent tariff reduction on hardwood plywood granted by the United States offers large marketing possibilities for Ontario which in 1967 produced 45 per cent of all the Canadian hardwood plywood.

A relatively new product, particle board, is enjoying increasing popularity in the construction industry. One of the largest Canadian particle board plants, Rexwood Products, is located in the Tri-Town area.

The future for secondary wood industries, that is, industries that remanufacture primary wood products into finished or semi-finished goods seems limited until cheaper forms of transportation become available or until the local consumer market increases substantially.

B. Pulp and Paper The Northeastern Ontario Region is ideally suited to the pulp and paper industry, having large quantities of high

quality spruce pulpwood plus a readily available supply of water for industrial and power purposes.

TABLE 4.8

PULP AND PAPER, NORTHEASTERN ONTARIO, EMPLOYEES AND VALUE ADDED 1961 AND 1966

	1961	1966	% change
Employees	4,972	5,835	17.4
Value Added ($000)	65,448	83,504	27.6

Source: Dominion Bureau of Statistics, Census of Manufactures, 1961, 1966.

In 1966, the pulp and paper industry accounted for almost 20 per cent of all manufacturing employees in Northeastern Ontario and for more than 25 per cent of the total value added by manufacturing.

TABLE 4.9

PULP AND PAPER, NORTHEASTERN ONTARIO, EMPLOYEES BY DISTRICT, 1966

	% of Pulp and Paper employees	% of all manufacturing employees
Algoma	10.8	5.2
Cochrane	57.4	81.0
Manitoulin	-	-
Nipissing	15.0	35.7
Sudbury	16.8	9.2
Timiskaming	-	-
Northeastern Ontario	100.0	19.3

Source: Pay Research Analysis Branch, Department of Labour, Ottawa.

(i) Pulp and Paper Mills There are eight large mills in the region.

Pulp and Paper Producers

Location	Company	Products
Algoma		
Sault Ste. Marie	Abitibi Paper Co. Ltd.	newsprint
Cochrane		
Kapuskasing	Spruce Falls Power and Paper Co.	newsprint
	Kimberly Clark of Canada	tissue products crepe wadding
Iroquois Falls	Abitibi Paper Co. Ltd.	newsprint
Smooth Rock Falls	Abitibi Paper Co. Ltd.	bleached kraft bleached sulphite
Nipissing		
Sturgeon Falls	Abitibi Paper Co. Ltd.	building boards corrugating medium
North Bay	Canadian Johns-Manville Co. Ltd.	insulating boards
Sudbury		
Espanola	Eddy Forest Products Ltd.	kraft pulp specialty papers

Demand for paper products is rising and a steady income is likely to be assured to the region for many years. Increased mechanization allows for longer cutting seasons and an element of stability in employment. However, high labour, freight, and overhead costs adversely affect the competitive position of the region.

(ii) Newsprint Approximately 750,000 tons of newsprint are produced annually at three of the eight pulp and paper mills. A large proportion of the production is exported to the United States, mainly the Midwest,

so that changes in American demand have a direct effect on the region.

(iii) Kraft Pulp Pulp is the second most important product of the pulp and paper mills of Northeastern Ontario. Two mills are involved. The market for kraft pulp is one of the fastest growing of the pulp and paper markets. The bulk of Canadian kraft pulp, until recently, was exported to the United States. However, the United States share of exports has declined steadily as an increasing proportion has been shipped to overseas markets.

The North American freight rate structure for kraft pulp does not restrict producers to specific regional markets. Therefore, manufacturing costs play a dominant role in determining a mill's ability to penetrate a given market. Manufacturing costs in eastern Canada are higher than in British Columbia. The latter maintains its competitive advantage because the large size of its trees and extensive mechanization combine to produce a high man-hour productivity, almost double that of Eastern Canada. Consequently, the logging wages, the logging overhead and the logging transportation costs per unit are substantially lower than in eastern Canada.

Both kraft pulp mills in Northeastern Ontario recorded substantial increases in their value of production between 1961 and 1968. This was largely the result of the greater market value of sulphate pulp as opposed to sulphite pulp.

(iv) Linerboard, Corrugating Medium Production of linerboard is a small part of total pulp and paper production in Northeastern Ontario. The Abitibi mill at Sturgeon Falls produces corrugating medium and hardboard. The Johns-Manville mill at North Bay produces insulating board.

(v) Specialty Papers, Tissues and Wadding Production of these products is a very small part of the total pulp and paper production of the region. It is carried on at Kapuskasing and Espanola.

The Future of the Pulp and Paper Industry

Barring the introduction of a new pulp and paper mill in the Northeastern region, only a slight increase in employment is anticipated as production increases (see Table 4.10).

TABLE 4.10

FUTURE EMPLOYMENT IN FOREST INDUSTRIES IN NORTHEASTERN ONTARIO

	Actual	Estimated	
	1968	1976	1981
Forestry[1]	4,922	4,500	4,000
Pulp and Paper[2]	5,487	5,800	6,000
Wood Products[3]	4,100	4,350	4,800
Total	14,509	14,650	14,800

Source: 1. Department of Lands and Forests - Timber Branch
2. Regional Development Branch - Manufacturing Survey
3. Ontario Statistical Centre - Special Survey

The Northeast depends primarily on the American Midwest for the sale of its pulp and paper products. The rate of growth of

this market, however, is relatively slow. The consequences of the new Kennedy Round Tariffs on forest products should be negligible for those products which previously enjoyed free trading status with the United States, namely newsprint and wood pulp.

Northeastern Ontario enjoys relatively low access freight rates to the American Midwest. However, Quebec newsprint producers may attempt to penetrate the Midwestern market as their exports to the southern and northeastern regions of the United States are threatened with increasing competition from the mills of the southern states. Unless Northeastern Ontario can penetrate new markets, only moderate expansion is foreseen in newsprint production. At present, expansion plans considered by the industry for the next five years appear to involve only minor improvements to existing mills.

The production and marketing of kraft pulp differs from newsprint in that its wood content is proportionately greater and its North American freight rates are highly competitive. Therefore, if the existing gap between eastern and western Canadian wood costs is not reduced, large scale development of kraft pulp production in eastern Canada will be difficult. The new Kennedy Round tariffs should have little effect on the kraft pulp trade with the United States, as free trade previously existed. However, tariff reductions on such items as wrapping paper, linerboard and paper board should indirectly increase the domestic consumption of kraft pulp. Only minor expansion is anticipated in Northeastern Ontario because of

the high wood and transportation costs.

C. Tourism

Tourism makes an important contribution to the economy of Northeastern Ontario by bringing a fairly substantial income into the region from external sources.

Because the tourist industry tends to stimulate existing services rather than to create its own separate network, its total impact is difficult to assess. However, Northeastern Ontario has an above average proportion of its labour force in services, and this must be due, to some extent, to the importance of tourism to the region.

TABLE 4.11

INDICATORS OF ACTIVITIES IN THE TOURISM INDUSTRY
NORTHEASTERN ONTARIO, 1961

	No. employed in Hotels, Restaurants & Taverns	Per cent of total Labour Force	No. employed in Personal Service Industries	Per cent of total Labour Force
Algoma	1,854	4.8	2,997	7.8
Cochrane	1,168	3.7	2,041	6.5
Manitoulin	264	8.2	386	12.0
Nipissing	1,234	5.6	1,949	8.8
Sudbury	1,902	3.4	3,611	6.5
Timiskaming	619	3.7	1,083	6.5
Northeastern Ontario	7,041	4.2	12,067	7.2
Province of Ontario	75,950	3.2	164,053	6.9

Source: Dominion Bureau of Statistics, Census of Canada, Service Trades, 1961.

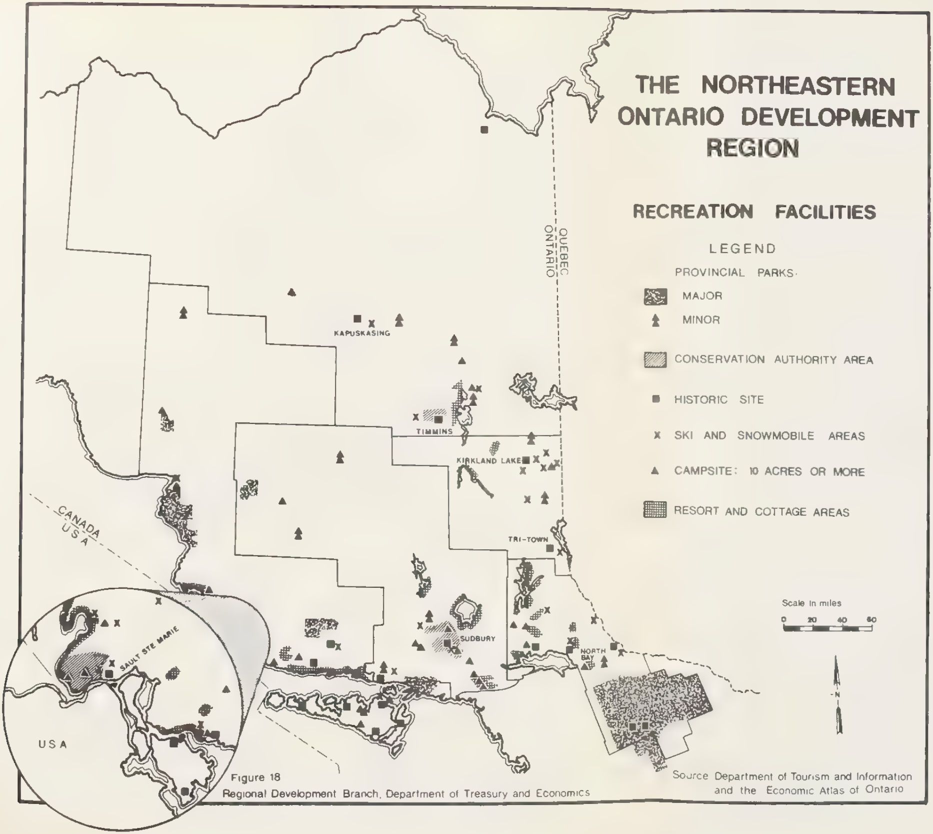


Figure 18

Regional Development Branch, Department of Treasury and Economics

Source Department of Tourism and Information and the Economic Atlas of Ontario

Northeastern Ontario is in a relatively favourable competitive position to develop its tourist industry, when compared with other regions of the province. As the more southern parts of Ontario become increasingly urbanized and industrialized, this competitive position will continue to improve. The region has advantages of beautiful scenery, excellent winter and water sport facilities and an abundant quantity of land for the development of national and provincial parks. It should be noted, however, that in planning for the future, care should be taken to control development along waterfront areas and to maintain areas of open space near the faster growing urban centres of the region.

In order to utilize this potential, consideration must be given to the types of tourists who visit the region and to the problems of accessibility and promotion which are key factors in developing the tourist industry of Northeastern Ontario.

In the past, Northeastern Ontario has relied on southern Ontario and the northern United States, especially Michigan, to provide the greater proportion of its tourists. Visitors from other parts of North America and from other countries of the world have been relatively few in number. However, two distinct trends in travel patterns are emerging. As income levels and leisure time in North America increase, the long vacations which used to be taken relatively close to home are being displaced by international travel, and for the people of southern Ontario and the northern United States, Northeastern Ontario is becoming an area in which to

spend long weekends only, with an emphasis on cottage living, camping and, to a lesser extent, skiing.

Tourism throughout the world is a growing industry. As incomes rise, increasing proportions are spent on vacations; the increase in visits to vacation areas is high, compared with the growth in population. Educational attainment is rising, and emphasis is being placed on history, tradition and cultural festivals. Northeastern Ontario has much to offer the tourist with regard to the Canadian heritage. That advances being made in technology do not exclude tourism is seen by the impact on recreation of, for example, power boats and snowmobiles. Increased urbanization leads people to seek a change of environment and areas such as Northeastern Ontario are becoming increasingly attractive.

As the Northeastern Ontario Region develops, the entire services sector should become increasingly important, and it would not seem unreasonable to assume a growth rate in the "tourist" service sector of Hotels, Restaurants and Taverns, of some 3.0 per cent per annum to 1986. This would more than double the labour force of the tourist industry over the 1961-1986 period. This increase in employment should offer in particular, opportunities to the female labour force in the region.

It must be stressed that there is a need for all districts to improve their tourist accommodation, since without these facilities the promotion of other aspects of the region's tourist industry is of no avail.

Non-basic Industries

It was stated earlier that developments in the basic economic activities in Northeastern Ontario will influence and encourage development in the non-basic activities of the region. It is anticipated that, with a well-established and steadily growing basic sector, other economic activities should begin to develop at a faster rate. This is especially true of manufacturing activities and the service industries.

Although a continuing increase in the output of the basic industries is expected, the increase in employment will be much lower. If the region is to have a reasonable growth rate, alternative opportunities for employment must be found. These might include the encouragement of further processing of primary products within the region and the establishment of industries to support the export or basic industries. There is evidence that the Northeast is already moving in this direction, but more will need to be done. The demand for services is expanding at a rapid rate and this sector will provide an increasing number of employment opportunities to the people of Northeastern Ontario.

The following analysis examines the growth potential of the remaining five economic sectors. These are agriculture, other manufacturing (i.e. excluding primary metals, pulp and paper and wood products, discussed earlier), transportation, communication and utilities, construction, and trade and services. The development

of these sectors will, to a large extent, determine the degree of industrial diversification in Northeastern Ontario. Furthermore, future trends in these industries will determine settlement patterns and influence priorities and targets.

A. Agriculture

Over the past two decades, Northeastern Ontario has experienced a rapid change in the occupational composition of the labour force as well as a shift of population towards larger urban centres. This has meant a steady decline in the number of people living on farms.

The main agricultural areas in Northeastern Ontario are: Manitoulin Island, parts of the north shore of Lake Huron, particularly in the vicinity of Sault Ste. Marie, the Sudbury Basin, the northwestern portion of the Nipissing Lowlands, the Little Clay Belt from Haileybury northerly, and parts of the Great Clay Belt, particularly the Timmins, Matheson, Cochrane, Kapuskasing and Hearst areas. Encouraged by provincial colonization programs, most of these farming areas were settled following the construction of railways and were, in the early years of this century, closely related to the pulp and paper and mining industries, without which agriculture could not have developed extensively. Today, in the face of increasing urbanization and the economies of scale and other advantages enjoyed by agriculture in southern Ontario, farming in Northeastern Ontario is tending to become increasingly marginal. This is especially true in the Great

Clay Belt where farm abandonment and rural decline have become widespread.

To gain a better understanding of the actual performance of the agricultural sector, one can examine the total number of farms, the total acreage, farm cash receipts and the labour force engaged in agriculture for the period 1951-1966. All, except one, declined, not only in relative, but also in absolute terms. The total number of farms declined by 54.2 per cent from 9,113 in 1951 to 4,176 in 1966 while the total farm area declined 30.2 per cent from 1.7 million acres to 1.2 million acres over the same time period. During this same period, farm cash receipts rose only 12.4 per cent from $13.3 million to $15.0 million; a very low average increase of 0.8 per cent per annum. This has led to an even more serious decline of the labour force.

Over the decade 1951-1961, the regional labour force declined 44.5 per cent from 9,254 to 5,140, a far more rapid decrease than in the province, which declined only 16.2 per cent over the same period. The estimated regional labour force for 1966 of 4,280 shows a further decline of 16.7 per cent since 1961.

While this decline has certainly caused some serious structural problems, there is no doubt that the adjustment has on the whole been a beneficial one. A shift of labour out of agriculture can be beneficial if the lower-paying agriculture jobs are replaced by higher-paying manufacturing, or in the case of Northeastern Ontario, mining and forestry jobs.

TABLE 4.12

LABOUR FORCE IN AGRICULTURE, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951		1961		
	No.	% of Total Labour Force	No.	% of Total Labour Force	1961-1951 % Change
Algoma	1,354	5.4	731	1.9	- 46.0
Cochrane	1,880	6.1	754	2.4	- 59.9
Manitoulin	1,167	31.4	844	26.2	- 27.7
Nipissing	1,518	8.8	925	4.2	- 39.1
Sudbury	1,529	3.8	794	1.4	- 48.1
Timiskaming	1,806	10.1	1,092	6.6	- 39.5
Northeastern Ontario	9,254	6.9	5,140	3.1	- 44.5
Province of Ontario	201,482	10.7	168,775	7.0	- 16.2

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.

An analysis of the profitability of farming in Northeastern Ontario reveals that the farmer finds himself at the lower end of the income scale (see Table 4.13). He can expect a rate of return to capital slightly in excess of four per cent per annum, compared with a rate of 10-15 per cent in manufacturing. Labourers engaged in farming in the region received some $1,010 in 1961, compared with the average manufacturing wage of $5,100 and in 1966 approximately $2,450 compared with $6,000 in manufacturing. These estimates are subject to certain qualifications and may, on balance, underestimate the return to farming. For example, they do not include the value of farm produce consumed on the farm itself. In addition, part-time farmers may well depress the returns available to full-time farmers. Against this, however, we must

TABLE 4.13

PROFITABILITY OF FARMING IN NORTHEASTERN ONTARIO, 1951, 1961 AND 1966

	Capital Value $'000	Total Cash Receipts $'000	Total Return* to Capital $'000	Percentage Rate* of Return	Total Return* to Labour $'000	Labour Force in Agriculture	Return per Unit* of Labour $
Algoma							
1951	12,624	2,063	619	4.9	1,444	1,354	1,066
1961	14,557	1,981	594	4.1	1,387	731	1,897
1966	17,512	2,507	752	4.3	1,755	660**	2,659
Cochrane							
1951	14,384	2,065	620	4.3	1,445	1,880	769
1961	14,023	1,803	541	3.9	1,262	754	1,674
1966	14,077	1,894	568	4.0	1,326	680**	1,950
Manitoulin							
1951	12,288	2,283	685	5.6	1,598	1,167	1,369
1961	13,649	2,095	629	4.6	1,466	844	1,737
1966	15,149	2,656	797	5.3	1,859	650**	2,860
Nipissing							
1951	12,765	2,301	690	5.4	1,611	1,518	1,061
1961	13,993	2,219	666	4.8	1,553	925	1,679
1966	15,815	2,495	749	4.7	1,746	750**	2,328
Sudbury							
1951	13,677	1,991	597	4.4	1,394	1,529	912
1961	14,458	1,778	533	3.7	1,245	794	1,568
1966	14,437	1,862	559	3.9	1,303	630**	2,068
Timiskaming							
1951	16,199	2,643	793	4.9	1,850	1,806	1,024
1961	17,484	2,664	799	4.6	1,865	1,092	1,708
1966	22,631	3,584	1,075	4.8	2,509	910**	2,757
Northeastern Ontario							
1951	81,937	13,346	4,004	4.9	9,342	9,254	1,010
1961	88,164	12,540	3,762	4.3	8,778	5,140	1,708
1966	99,621	14,998	4,500	4.5	10,498	4,280**	2,453

* Calculations assume a 30:70 Capital:Labour Ratio
** Estimated, based on the number of farm operators, Hedlin Menzies, 1966

Source: Dominion Bureau of Statistics, Census of Canada, Agriculture, 1951, 1961 and 1966
Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951, 1961 and 1966
Calculations of Regional Development Branch, Department of Treasury and Economics.

balance the expenses incurred in operating the farm. These range from depreciation to the buying of fertilizer and livestock. Unfortunately, the accounting procedure used in the farm census does not permit such a detailed analysis. Nevertheless, it should be noted that the magnitude of the difference is such that any likely bias introduced in the analysis would not alter the conclusions substantially.

In conclusion, it may be said that the substantial consolidation of farms is likely to continue. The abandonment of farms usually begins with the sub-marginal land, so cultivation will shift to better quality land and become more intensive. Technical changes should ensure increased productivity and higher returns. The farmers will likely continue to produce mainly for local consumption, the region being not conducive to large-scale farming in competition with southern Ontario and the Prairies. Agriculture will provide employment for fewer people in the future, but it should be possible for those displaced to find employment in the expanding industrial and services sectors of the region.

B. Non-Basic Manufacturing Industries[8]

Since 1961, employment in these industries has declined very slightly although value added over the 1961 to 1966 period increased 27.4 per cent (see Table 4.14). In 1966, only 13.1 per cent

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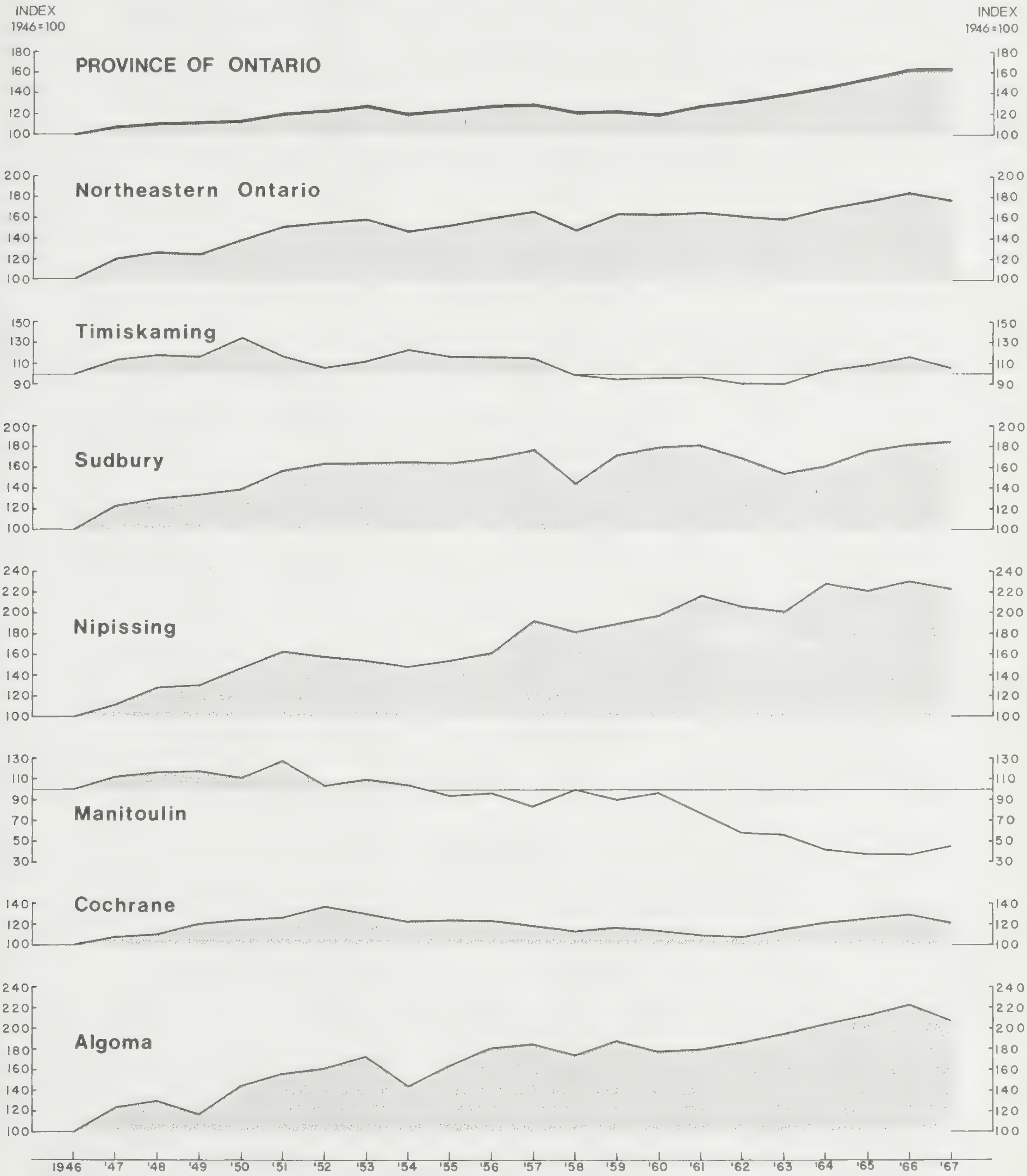
[8] Because of the need to separate basic and non-basic manufacturing industries, charts concerned with manufacturing as a whole were included in this section in order to provide an overall view.

NORTHEASTERN ONTARIO DEVELOPMENT REGION

INDEX OF MANUFACTURING EMPLOYMENT, 1946 - 1967



Regional Development Branch, Department of Treasury and Economics

Source: Canada, Dominion Bureau of Statistics, Census of Manufacturing Industries of Canada, Geographical Distribution

Figure 19

of all manufacturing employees in the region were in these industries. The majority of the manufacturing establishments are located in the major centres of the region, Sudbury, Sault Ste. Marie and North Bay, although there are some food and beverage manufacturers in other communities.

TABLE 4.14

NON-BASIC MANUFACTURING INDUSTRIES, NORTHEASTERN ONTARIO
EMPLOYEES AND VALUE ADDED, 1961 AND 1966

	Employees			Value Added ($000)		
	1961	1966	% change	1961	1966	% change
Food and Beverage	1,890	1,819	- 3.8	13,387	15,965	19.3
Textiles	23	22	- 4.3	121	103	- 14.9
Printing and Publishing	741	784	5.8	5,337	6,926	29.8
Metal Fabricating	607	n.a.	n.a.	4,417	n.a.	n.a.
Machinery	241	365	51.5	2,137	4,183	95.7
Non-Metallic Minerals	242	175	-27.7	2,493	2,289	- 8.2
Chemicals	470	415	-11.7	9,137	13,322	45.8
Miscellaneous	85	89	4.7	585	665	13.7
Other Industries	55	648	n.a.	401	4,960	n.a.
Northeastern Ontario	4,354	4,317	- 0.9	38,015	48,413	27.4

Source: Dominion Bureau of Statistics, Census of Manufacturers, 1961, 1966.

Although as discussed earlier, growth in primary metals, pulp and paper and wood products seems assured, growth in the other manufacturing sectors, unless closely connected to or integrated with the primary industries of Northeastern Ontario, appears to be limited because of cost considerations.

However, those industries, which are related or integrated with the primary sector appear to have considerable growth potential.

For analytic purposes, these industries are divided into two categories:

(i) import-substitute or supply industries;

(ii) export-generating or secondary processing industries.

While this division can never be clearcut, there are definite advantages in making it from an analytic standpoint.

The amount of import substitution will, to a large degree, be dependent on the growth of the primary sector. Economies of scale require a minimum market demand before a firm finds it advantageous to locate in a certain area. The demand is rapidly becoming large enough to justify the establishment of major supply industries in the region. Initially, a trend favouring the local production of low value, bulk product goods, would be expected. The establishment of a cement plant in Sudbury would be one example of this. It should be noted that the establishment of these supply industries will be particularly important to the regional economy, since they reduce local expenditure leakages, and increase the value of the regional multiplier. The establishment of supply industries also has specific locational implications. It will, for example, almost certainly encourage a greater degree of concentration in the existing spatial settlement pattern. More specifically, the City of Sudbury should be the major beneficiary of such a shift.

THE NORTHEASTERN ONTARIO DEVELOPMENT REGION

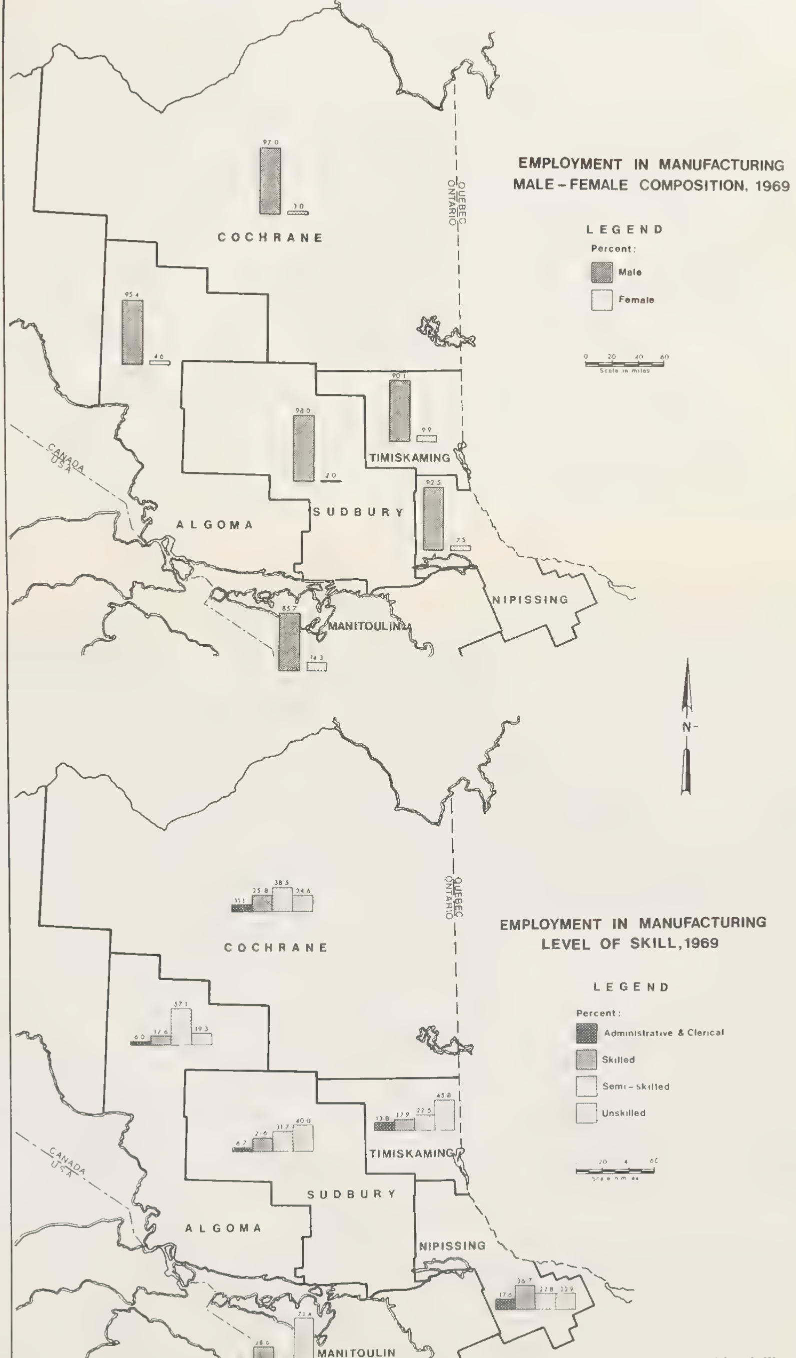


Figure 20

Source SURVEY OF MANUFACTURING 1969

REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

The potential of establishing additional export generating industries is more difficult to determine. While these industries would almost certainly be related to either forestry or mining, the range of alternatives is nevertheless substantial. One possibility would be the establishment of a sulphur-based (synthetic fibre) industry. Large quantities of sulphur and sulphuric acid are presently produced in the Sudbury and Timmins areas. Production of these products can be expected to expand as new plants come into operation and anti-pollution programs become more widespread.

The large quantities of copper produced in the region could also lead to the establishment of a secondary copper-using industry. The processing of refined copper into copper wire and tubing would appear to be feasible. This could well lead to the establishment of an insulation plant. Once again, Sudbury would be the main beneficiary of such a development.

Increases in metal fabricating, iron and steel products and chemicals could occur, as these industries absorb a high proportion of inputs which are readily available in Northeastern Ontario.

While the growth of manufacturing related to mining implies increasing concentration towards Sudbury, growth of wood-using industries would be more dispersed. There is a shortage of secondary wood-using industries in Northeastern Ontario. Only 12 of the more than 200 wood-using industries are of a secondary nature. Except for

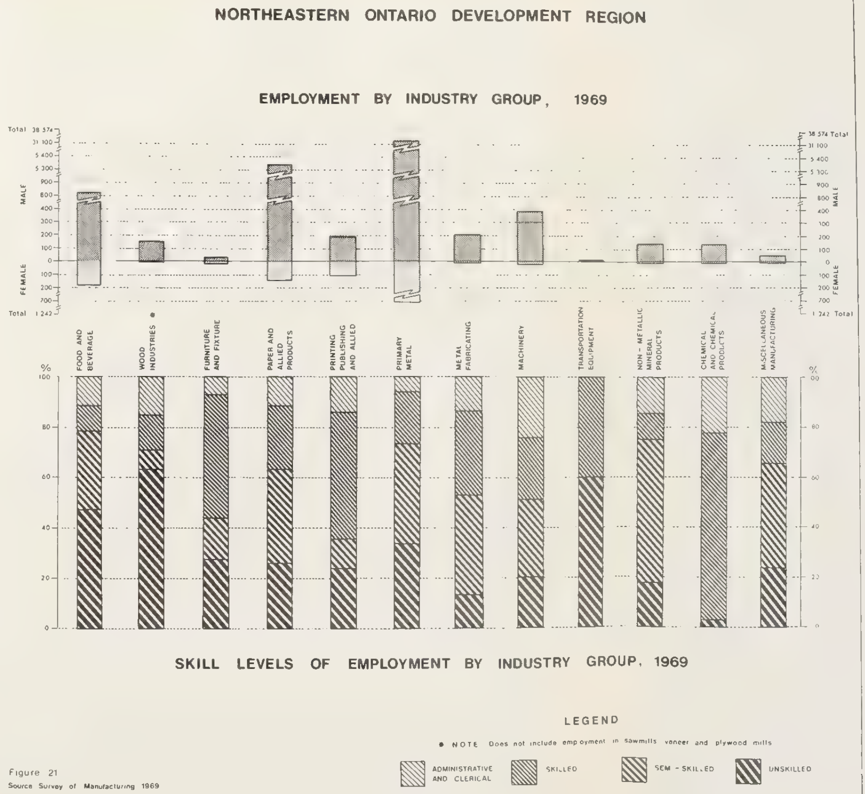


Figure 21

Source Survey of Manufacturing 1969

REGIONAL DEVELOPMENT BRANCH DEPARTMENT OF TREASURY AND ECONOMICS

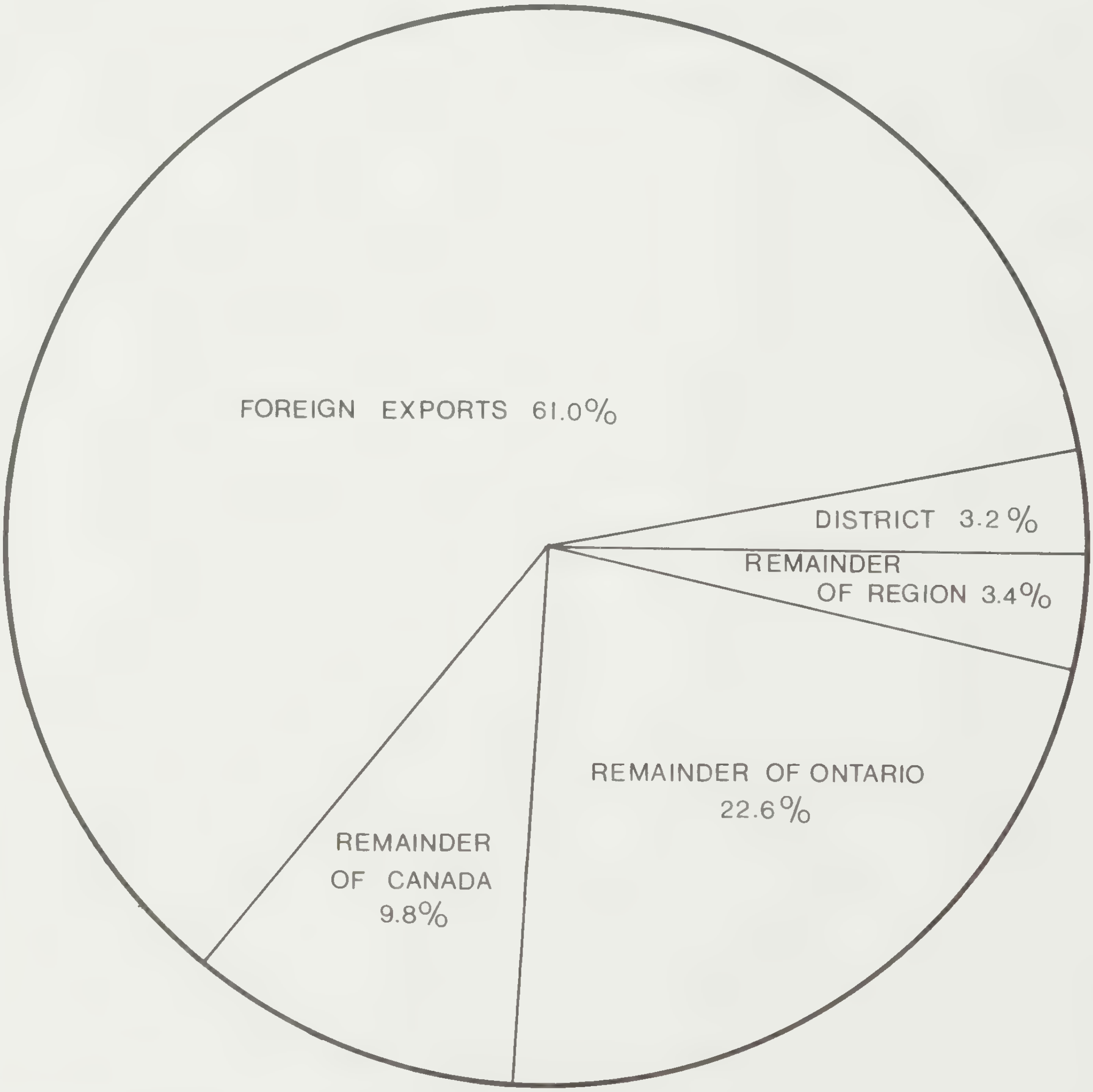
Canadian Lundia, which employed 75 workers in 1969, all are quite small. This New Liskeard company, which produces shelving, has increased its production substantially over the past eight years, testifying to the viability of such ventures in Northeastern Ontario. With the greater use of northern hardwoods, more and more of these secondary wood-using industries could possibly establish themselves in this area. The ability of the Northeastern Ontario Region to attract more secondary wood-using industries will ultimately determine the degree to which the region will develop.

Increased processing of forestry products, such as containerized packaging, prefabricated furniture manufacturing, and further processing of lumber products are the most promising areas of future expansion. Additional possibilities lie in the production of construction and insulation materials, and in the establishment of wooden toy and wooden tableware manufacturers.

In addition to increasing its productive capability in those industries for which there is the special advantage of availability of resources, further investment might be attracted into processing industries that exploit the relatively untapped natural resources of the region, such as deposits of china clay, fire clay and silica. Up to the present, it has been economically impractical to develop these deposits, but large imports into Canada of these raw materials and the products manufactured from them - plate glass, glass fibres, optical glass, ceramics, vitreous enamels and bone china - seem to suggest that development in this sector could occur in Northeastern

THE NORTHEASTERN ONTARIO DEVELOPMENT REGION

SPATIAL DISTRIBUTION OF MANUFACTURING OUTPUT
1968

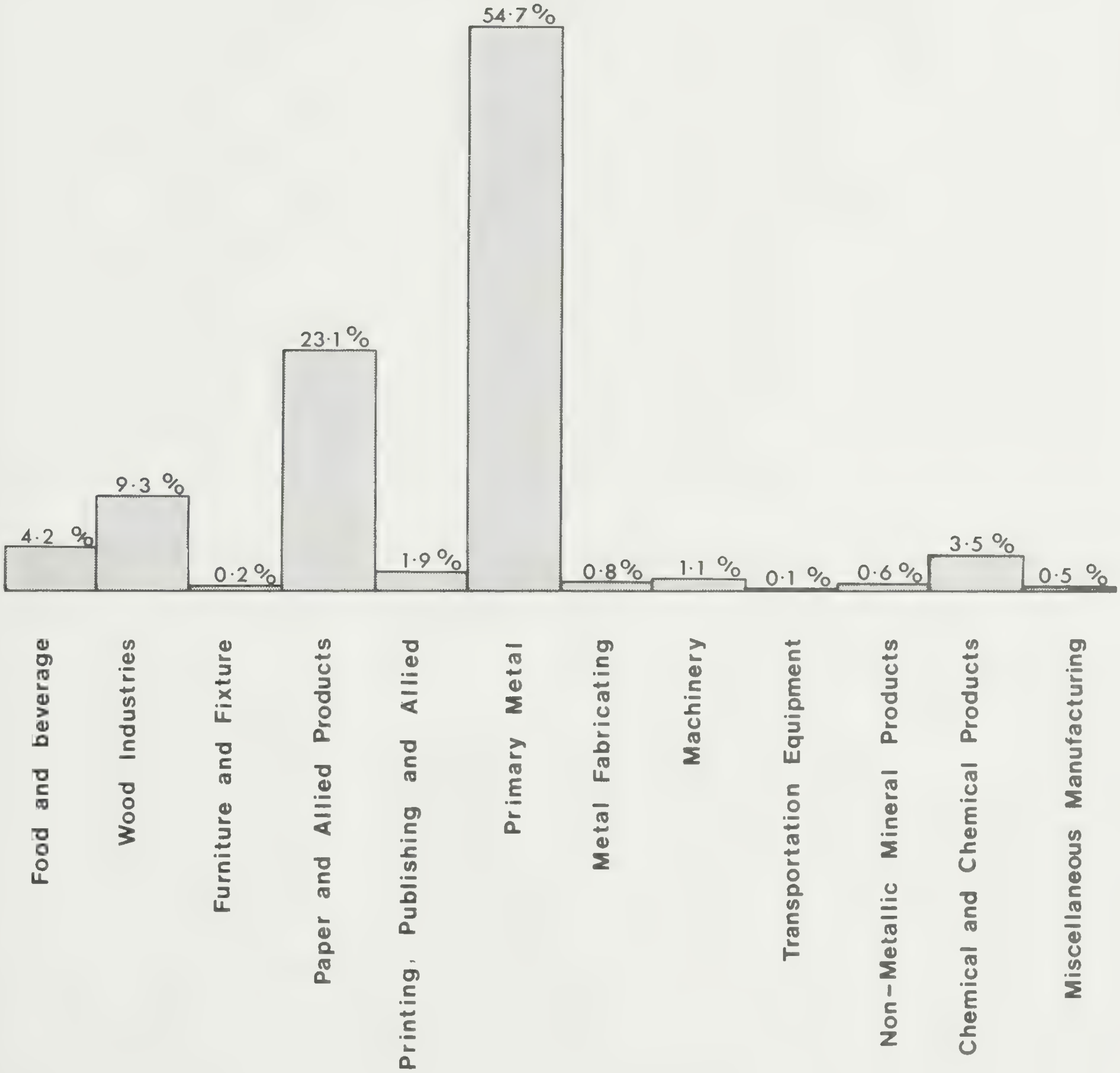


SOURCE: "SURVEY OF MANUFACTURING 1969"
REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Figure 22

NORTHEASTERN ONTARIO DEVELOPMENT REGION

DISTRIBUTION OF MANUFACTURING OUTPUTS BY S.I.C. GROUP, 1966



SOURCE; DOMINIOI: BUREAU OF STATISTICS, CENSUS OF MANUFACTURES, 1966, SPECIAL TABULATION

REGIONAL DEVELOPMENT BRANCH, DEPARTMENT OF TREASURY AND ECONOMICS

Figure 23

Ontario in the future.

C. Transportation, Communication and other Utilities

In 1961, the transportation, communication and other utilities labour force in Northeastern Ontario was 17,160 or 10.3 per cent of the total labour force. This was an increase of 16.6 per cent over 1951. Because the total labour force increased at a slightly greater rate, the industry's share of the total declined very slightly over that period. A greater percentage of the regional labour force was employed in this classification than was the case for the province. However, this was probably due to the scattered settlement pattern and the resultant inability of the industry to utilize economies of scale. In addition, this is in part a basic industry exporting services to the rest of Ontario and Canada, the region being in a key position along the east-west trans-Canada road and rail links and also producing hydro-electricity for other parts of the province.

Transportation and communication facilities and public utilities have greatly contributed to the development of Northeastern Ontario. Historically, the construction of the railway networks led directly to the discovery of important mineral resources at Sudbury and Cobalt. Further, the T & NO Railway (ONR) was instrumental in opening up the region for subsequent discoveries of gold and silver deposits in the Porcupine, Kirkland Lake, Larder Lake and Gowganda camps. Railways also made the extensive forest resources of the

TABLE 4.15

LABOUR FORCE IN TRANSPORTATION, COMMUNICATION AND OTHER UTILITIES, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951		1961				
	No.	% of Total Labour Force	Total No.	% of Total Labour Force	Transportation & Storage	Communication	Electricity Water & Gas
Algoma	3,063	12.3	3,828	9.9	2,819	653	356
Cochrane	2,371	7.7	2,682	8.6	1,728	413	541
Manitoulin	408	11.0	416	12.9	298	73	45
Nipissing	3,384	19.6	3,566	16.1	2,560	597	409
Sudbury	3,867	9.6	4,805	8.7	3,556	827	422
Timiskaming	1,622	9.1	1,863	11.2	1,226	359	278
Northeastern Ontario	14,715	10.9	17,160	10.3	12,187	2,922	2,051
Province of Ontario	158,125	8.4	195,223	8.2	119,979	46,132	29,112
Major Cities							
Sudbury	2,234	18.3	2,110	7.1	n.a.	n.a.	n.a.
Sault Ste. Marie	1,190	15.0	1,355	8.2	n.a.	n.a.	n.a.
North Bay	1,246	18.3	1,851	21.4	n.a.	n.a.	n.a.
Timmins	736	10.4	732	7.2	n.a.	n.a.	n.a.

n.a. Not available

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961, and Special Tabulations.

region more accessible.

A basic transportation and communication system, plus supplies of power and water, are prerequisites for all industrial activity. In addition, the more developed the system of services, the more attractive a region becomes as a place to live and work.

The future should bring dramatic changes - fast trains connecting the main cities of the area and possibly even providing commuter services; greater use of container freight; the construction of solid pipelines to take ores and wood pulp from the region to markets in the south; increased use of telecommunications, and the use of microwave transmitters. It is unlikely that such developments would provide additional employment to the region. However, they open up the possibility of greater physical separation between the location of manufacturing plants and their head offices, and the decentralization of many administrative functions.

D. Construction

In the Northeastern Ontario Region, the construction industry provided employment for some 10,200 people, or just over six per cent of the region's labour force in 1961.

As a whole, the region did not keep pace with the province in the increase of construction workers in the 1951-1961 period, and a smaller proportion of the region's labour force is employed in construction than for the province.

TABLE 4.16.

LABOUR FORCE IN CONSTRUCTION, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951		1961		
	No.	% of total Labour Force	No.	% of total Labour Force	1961/1951 % Change
Algoma	1,607	6.4	2,528	6.5	57.3
Cochrane	1,325	4.3	2,211	7.1	66.7
Manitoulin	259	7.0	169	5.2	- 34.8
Nipissing	1,877	10.9	1,483	6.7	- 21.0
Sudbury	2,923	7.2	3,089	5.6	5.7
Timiskaming	955	5.3	682	4.1	- 28.6
Northeastern Ontario	8,946	6.6	10,162	6.1	13.6
Province of Ontario	127,494	6.8	153,866	6.4	20.7

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.

The construction industry in Northeastern Ontario has to contend with a greater degree of seasonality than in the more southern parts of the province. For this reason, many workers are reluctant to enter the industry unless they can find alternative employment in the off-season.

Spending per capita on all types of building activity was significantly lower in the region than in the province in both 1961 and 1966. The increase of four per cent in the region can be contrasted with the increase of 63 per cent in the province over this time period.

In residential construction, spending per capita fell by 27 per cent in the region whereas in the province it rose by 32 per cent,

widening the difference between the two. Five of the six districts of Northeastern Ontario (Cochrane sustained a rise of six per cent) experienced a decline in the amount per capita spent between 1961 and 1966. This, to some extent, is due to the slowing down of the population growth in the region and a levelling out of the economy.

In non-residential construction the region gained 44 per cent in spending per capita, but at the same time, the provincial increase was 93.4 per cent or more than twice as high. Large scale industrial and commercial construction will probably only occur as the general economic situation in the region becomes conducive to the establishment of new industries.

E. Trade and Services

Retail and wholesale trade are substantial employers of people in Northeastern Ontario. Moreover, employment in this sector has consistently experienced a high rate of growth, allowing it to increase its share of total employment. Labour force data, which can be used as a reasonable proxy for employment show the following changes for the 1951-1961 time period.

TABLE 4.17

LABOUR FORCE IN TRADE, NORTHEASTERN ONTARIO, 1951 AND 1961

	1951		1961		
	No.	% of total Labour Force	No.	% of total Labour Force	1961/1951 % Change
Algoma	2,506	10.1	4,995	12.9	99.3
Cochrane	2,997	9.7	3,816	12.2	27.3
Manitoulin	308	8.3	406	12.6	31.8
Nipissing	2,174	12.6	3,300	14.9	51.8
Sudbury	3,851	9.5	6,987	12.6	81.4
Timiskaming	2,276	12.7	2,321	14.0	2.0
Northeastern Ontario	14,112	10.5	21,825	13.1	54.7
Province of Ontario	267,267	14.2	370,540	15.5	38 6

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.

In Northeastern Ontario, the trade sector is primarily non-basic, depending to a large degree upon the growth prospects of the basic industries. In effect it responds to growth rather than stimulates it. This, however, does not deny its major importance as a future employer of people. The trade sector is highly responsive to income, it has, in fact, an income elasticity greater than unity. Thus, as per capita income grows, per capita sales will increase more than proportionately, resulting in higher employment in this sector. As an indication of this trend, there has been a discernible increase in the percentage of the labour force in this sector. Labour force in trade increased from 10.9 per cent in 1951 to 13.1 per cent in 1961, while the proportion in the primary

and manufacturing sectors declined. This clearly indicates that the spending patterns of the population will play an increasingly important role in the spatial development of the region.

Retail sales were examined to determine the dominant retail trading centres. The 10-year growth rate of centres and districts was also calculated as an important indicator of the shape of future markets. It should be pointed out that the indices (see Table 4.18) were devised to provide information regarding the degree of concentration of each indicator in relation to population size, and in the case of the Market Attraction Index, in relation to population and income.

An area with a Market Attraction Index greater than one (i.e. a low income rating index, but a high sales rating index) is likely to make a large volume of sales to residents of the surrounding territory. Conversely, a low market attraction index indicates that the area or centre in question is dominated by other retail centres. The above type of analysis is necessitated by the fact that people do not necessarily spend their income where they live, so that the purchasing power of an area cannot automatically be translated into sales.

The data indicate that while other centres rely mainly upon their own population for retail sales, Timmins appears to have a substantial hinterland from which to draw. Its remoteness from southern Ontario also reduces the likelihood of purchasing power from this area flowing into southern centres. Sault Ste. Marie,

TABLE 4.18

SELECTED DATA ON THE MARKET POTENTIAL FOR THE DISTRICTS OF NORTHEASTERN ONTARIO AND THE PROVINCE OF ONTARIO

	Population		Personal Disposable Income, 1967			Retail Sales, 1967			Market Attraction Index[3]
	10 year rate of growth %	April 1968 Total No. '000	Total $ m	Per capita $	Income Rating Index[1]	Total $ m	Per capita $	Market Rating Index[2]	
Algoma	7	117.1	311.4	2,670	131	136.5	1,170	101	.77
Sault Ste. Marie	30	77.6	209.9	2,750	135	98.8	1,300	112	.83
Cochrane	4	98.3	200.5	2,050	100	107.1	1,090	94	.94
Kapuskasing	62	13.2	41.8	3,270	160	19.7	1,540	133	.83
Timmins	1	29.5	57.2	1,940	95	39.2	1,330	115	1.21
Manitoulin	-4	10.9	15.8	1,450	71	11.3	1,040	90	1.27
Nipissing	13	76.8	160.2	2,100	103	84.4	1,110	96	.93
North Bay	25	47.6	115.1	2,440	120	60.2	1,280	110	.92
Sudbury	9	176.1	455.7	2,600	127	190.6	1,090	94	.74
Sudbury	11	119.0	315.7	2,670	131	171.3	1,450	125	.95
Timiskaming	-11	47.2	88.6	1,860	91	48.9	1,030	89	.98
Northeastern Ontario	6	526.4	1,232.2	2,352	115	578.8	1,100	95	.83
Province of Ontario	25	7,283.0	16,227.0	2,260	111	8,941.3	1,250	108	.97

1 Measures the average per capita income of an area against the national average, where the national average has an arbitrary base of 100
2 Measures the average retail sales of an area against the national average, where the national average has an arbitrary base of 100.
3 This measure is obtained by dividing the market rating index by the income rating index, given the national average of 1 as a base.

Source: Financial Post 1968/1969 "Survey of Markets" and special tabulations, Department of Treasury and Economics.

North Bay and Sudbury all suffer from this phenomenon to some extent.

The nature of sales in Northeastern Ontario appears to be geared primarily to the purchase of necessities, and very little to the purchase of luxury items. These tend to be acquired in the more populous cities of southern Ontario where there is a greater availability of choice. Here sales outlets can specialize more readily, since the market for their products is much larger. The north suffers precisely from this lack of specialization. Stores are generally small and sell a variety of items. As the data indicate, this tends to result in small, inefficient establishments, and results not only in hardship to the owner, but in a generally higher price structure. Given this market structure there is every indication that a more rational sales distribution would encourage more northerners to buy from local sources. This rationalization of markets, however, would also be labour saving, and might, therefore, not lead to substantial employment increases. In making Northeastern Ontario a more viable community, the trade sector has a large role to play in reducing the substantial income leakages which in the past have prevented the region from reaching its full economic potential.

Like trade, the services sector has become an important source of employment for people in the region. In 1961 it accounted for 19.5 per cent of the total labour force. This was a substantial increase from its percentage share of 16.3 in 1951. Future development of the services sector is particularly important, since services employ a relatively high proportion of females.

TABLE 4.19

LABOUR FORCE IN PROFESSIONAL AND PERSONAL SERVICES* NORTHEASTERN ONTARIO 1951 AND 1961

	1951		1961		
	No.	% of total Labour Force	No.	% of total Labour Force	1961-1951 % Change
Algoma	3,894	15.5	7,424	19.2	90.7
Cochrane	4,531	14.7	5,469	17.5	20.7
Manitoulin	652	17.5	683	21.2	4.8
Nipissing	3,595	20.8	5,371	24.2	49.4
Sudbury	6,171	15.3	10,438	18.9	69.1
Timiskaming	3,149	17.6	3,160	19.1	0.3
Northeastern Ontario	21,992	16.3	32,545	19.5	48.0
Province of Ontario	440,857	23.4	565,581	23.6	28.3

*Includes Finance, Insurance, Real Estate, Community, Business and Personal Service Industries.

Source: Dominion Bureau of Statistics, Census of Canada, Labour Force, 1951 and 1961.

Conclusion

From the above it is obvious that Northeastern Ontario has potential for development, especially of its mining, forestry and recreational resources. These in turn will promote growth in the service industries. However, it is equally obvious that this development will not occur evenly in all parts of the region. There is a trend throughout the province towards urbanization It is to these urban centres that we must look for a substantial share of the future development potential.

CHAPTER V

THE TRANSPORTATION SYSTEM

Major Facilities and Networks

Previously accessible only by canoe, Northeastern Ontario was traversed in the late nineteenth and early twentieth centuries by three transcontinental railways and two north-south rail systems. In Northeastern Ontario these railways usually initiated rather than followed settlement development. Other transportation facilities, such as roads, usually follow development. The map on page 143 shows the main facilities in the region.

Railways Canadian Pacific Railways first crossed the region in 1882-1883. Today there are 700 miles of CPR track crossing the region including the main line and routes from Toronto to Sudbury, and from Sudbury to Sault Ste. Marie. Much of the local freight traffic is handled by wayfreights. Transcontinental service is available. There are three piggyback terminals in the region, at North Bay, Sudbury and Sault Sault Marie. There is also a ship loader at Little Current to handle iron ore.

Canadian National Railways operates some 600 miles of main line track in Northeastern Ontario, between North Bay, Hornepayne and points west, and from the Quebec border west via Hearst.

Transcontinental passenger service is available along the North Bay-Hornepayne route through Capreol. Passenger service is also available between Cochrane and Kapuskasing.

The Algoma Central Railway was opened for traffic in 1903 with a short line from the Helen iron mine to Michipicoten Harbour. Construction had already begun on the line northward from Sault Ste. Marie and by 1914, had been extended to Hearst on the National Transcontinental Railway (now CNR).

The company also operates bulk freight carriers on the Great Lakes. The railway uses specially designed gondola cars to meet the needs of both the steel and forest industries. The bulk of the company's freight is pulpwood, steel, and iron ore, of which the last mentioned is transported from Wawa to the Algoma Steel Company in Sault Ste. Marie.

The other north-south railway in the region is the Ontario Northland Railway which runs from North Bay via Cochrane to Moosonee, with branch lines to Noranda, Quebec, to Timmins, and to various mining operations. The Ontario Northland Railway, together with its trucking, bus, and communication systems, is an essential component in the economy of Northeastern Ontario. Mineral products, particularly iron pellets and base metal concentrates, pulpwood and paper are carried over the Ontario Northland Railway in large quantities.

Road Transport Like the railways, the main roads through Northeastern Ontario traverse a much larger area than the region. Highway 17, which west of Sudbury forms part of the Trans-Canada Highway, crosses the region via Mattawa, North Bay and Sudbury, then goes along the Great Lakes shoreline via Sault Ste. Marie and Wawa to Thunder Bay. Highway 11 originates in Toronto, crosses No. 17 at North Bay, continues north through New Liskeard and Cochrane, then west through Smooth Rock Falls, Kapuskasing and Hearst, joining Highway 17 at Nipigon in Northwestern Ontario.

Other important highways in the region include Highway 69 direct from southern Ontario to Sudbury, Highway 101 from Quebec to Matheson, Timmins, Chapleau and Wawa, Highway 129 from Thessalon to Chapleau, Highway 108 from No. 17 to Elliot Lake and Highways 65 and 66 in the District of Timiskaming.

Several road construction and improvement projects are underway in Northeastern Ontario. Highway 144 linking Sudbury and Timmins was recently opened. Highway 631 is under construction and will link Highway 11 west of Hearst to Highway 17 at White River, via Hornepayne. Improvements are presently being made along Highways 11, 17, 65, 101 and 129.

Air Transport There are over 20 airlines and flying clubs operating in Northeastern Ontario. Most of these are charter companies but some, for example Air Canada, Austin Airways and

Trans-Air, run regular services.

Air Canada has scheduled flights to Sault Ste. Marie, Sudbury, North Bay, Timmins and Earlton. North Bay is particularly well served, with three scheduled flights a day from Toronto and one from Montreal.

Austin Airways has bases at Timmins, Sudbury, South Porcupine, Moose Factory and Moosonee and operates regular services among these points. Trans-Air operates a service from Toronto to Sault Ste. Marie, and New Liskeard Air Services provides a similar service in Timiskaming.

Water Transport Water transport is significant to the region's development because of its importance to Sault Ste. Marie and, to a lesser extent, Little Current and Michipicoten Harbour. Sault Ste. Marie is one of Ontario's busiest ports, although it should be noted that between 85 and 90 per cent of all freight is eastbound traffic made up of iron ore, coal, grain, paper and wood products. The Algoma Central operates eight bulk freight carriers from Sault Ste. Marie, the main cargoes being iron ore, coal and grain.

Ferry services from Tobermory on the Bruce Peninsula to South Baymouth on Manitoulin Island are now provided by the Owen Sound Transportation Company. The company has received some

financial assistance from both the Federal and Provincial Governments but still has difficulty in serving the high tourist demand with existing vessels.

The Department of Highways is now negotiating with the Federal authorities and other parties concerned to try to bring about substantial improvements in the ferry services from Southern Ontario to Manitoulin Island.

Choice of Mode Air transport comes into its own in regions such as Northeastern Ontario. As distances increase the comparative advantage of travel tends to shift from road to rail to air transport. The precise thresholds among competing modes of travel depend on the precise facilities and costs involved and on whether passenger or freight transport is required. With freeways, the length of journey that can compete with rail is obviously longer than if only two-lane roads are available. With new developments in high speed rail travel the length of journey over which rail can compete with air will also be extended. However, given present technology and the facilities available in Northeastern Ontario, air travel appears to be the most suitable mode of travel for many journeys.

The Development Effect of Transport Networks

It was coincidental that, during the construction of the

Canadian Pacific Railway across Canada, enormous nickel-copper deposits were discovered at Sudbury. Likewise it was coincidental that silver was discovered at Cobalt in 1903, when the Temiskaming and Northern Ontario Railway (now ONR) was being constructed between North Bay and New Liskeard. Nevertheless, the presence of the railways made possible mining developments which might otherwise not have occurred until much later. Because the geology of the region is now well-known, and mining exploration is carried out systematically, new discoveries are seldom accidental. Access to new mineral resources usually follows such developments; railway spurs are built, and access roads are supplied under the Department of Mines' "roads to resources" program.

There are two approaches to the construction of transportation facilities. The first approach provides facilities only if there are enough people wanting to use them, or enough resources that could be economically developed for the facility to justify its existence, in terms of the traffic it would generate.

The second approach assumes that a good transportation network will stimulate new economic development. The creation of this kind of stimulus through greater accessibility cannot be justified on purely economic grounds; it can only be justified as a means to long-run economic growth in the region as a whole. The Ontario Northland Transportation Commission is specifically involved with the development of resources in the Northeast, as well as with

supplying transport facilities - "promoting the development of Northern Ontario through the provision of modern and efficient transportation and communication facilities".

Problems and Needs Some parts of the region, particularly those along the north shore of Lake Huron are served by an adequate transportation network. In contrast, most of the northern communities and a great number of smaller settlements have remained relatively isolated, by distance if not by the lack of facilities.

Some settlements are only accessible by air. A problem in relation to air travel is that during the spring and fall there is a period of three weeks on average during which water landings are not possible while the ice is either breaking up or forming. Since the time at which freeze-up or break-up occurs varies throughout the region, the effective period of disuse is lengthened. At present only 18 of the 60 air bases are on land and even these are difficult to use at certain times of the year owing to weather conditions.

Developments in Progress With respect to road transportation, the Department of Highways has continuing programs of improvement and construction of provincial roads and in particular will be improving Highways 11, 17, 65, 101, 129 and 144. These programs should improve road access in the region.

Under The Airport Act, 1968, the Ontario Department of Transport has started a program of airstrip development. The aim is to build chains of airstrips which would form an integrated air transportation network. This "highways in the sky" program is aimed at providing an accessibility which is not supplied by other transportation systems.

The rail companies are on the whole finding passenger services uneconomic except where they can run a tourist service, for example, the ONR's Polar Bear Express. However, rail will probably continue to be of importance, chiefly for freight.

Preliminary investigations of alternate modes of transportation such as hovercraft and helicopter are being carried out by the Northern Ontario Resources Transportation Committee and provincial government departments. The precise modal balance of the facilities to be provided will depend on the location and economic activities of the growth centres in the region.

CHAPTER VI

POTENTIAL URBAN CENTRES OF OPPORTUNITY

Growth Centre Concept and Selection Criteria

Growth Centre Concept A growth centre can be defined as an urban settlement capable of self-sustained growth, or capable of achieving such growth through stimulation. These centres furthermore serve as generators of economic activity not only for the urban core, but also for their functionally defined hinterland or sphere of influence. This urban sphere of influence can be defined in terms of trade area, journey-to-work zones, or some variant of the time-distance factor. All definitions, however, recognize the linkages of the centre with its defined sphere of influence. Any increase in the economic activity of the urban core will almost immediately make its influence felt on all parts of the system. These benefits can be transmitted in a number of ways and need not be spelled out here. Suffice it to say that the overspill of any change in activities occurring in the central core will be substantial. A growth centre policy should, therefore, not be interpreted as a means of stimulating growth merely in specific urban centres, but also as a means through which social and economic improvements can be distributed throughout entire sub-regional areas.

The growth centre concept, in addition to providing a mechanism through which regional growth can be encouraged, also

offers a number of unique long-term advantages. Growth centres allow for a maximum utilization of investment in infrastructure. They are able to provide an adequate range of services to both people and industry. They can absorb structural changes and provide industry with a diverse labour market. All of the above factors are reflected, in some way, in the cost structure of individual firms. The existing settlement pattern of a geographic area may not be optimal for the over-all development of the area. The present approach recognizes this and attempts to analyze the Northeastern Ontario Region not only from an economic, but also from a social and spatial viewpoint. The growth centre concept is used as a departure for our spatial analysis.

In Northeastern Ontario this type of analysis is especially important because the present settlement pattern oriented primarily to resource-based industries,

- i does not provide labour markets in each centre of adequate size for growth
- ii does not allow for industrial linkages because of distances between centres
- iii does not generate the purchasing power required to attract supporting industries
- iv does not allow sufficient development of both public and private services.

In addition, all centres in the region suffer from the lack of an urban interdependence. Growth in any one centre has generally

limited impact upon the other centres. Regional growth must, therefore, be viewed currently as the sum of the growth of its separate components, rather than as the growth of a unified system of interrelated parts.

Selection Criteria Prior research into the social and economic characteristics of Ontario's ten development regions has provided considerable statistical and qualitative data which can be applied to the following criteria for the purpose of analyzing the relative growth potential of urban places:

1. Growth rates of urban centres
2. Spheres of influence of urban centres
   - functional hierarchy
   - trade area
   - government services
3. Industrial mix of urban centres
4. Water and sewage
5. Transportation accessibility
6. Housing
7. Availability of industrial sites

This rationale for the selection of growth points has been applied to 30 urban centres in Northeastern Ontario, all with populations of over 1,000 and all with potential for future development.

Growth Rates of Urban Centres

Rates of growth of urban centres were analyzed in detail

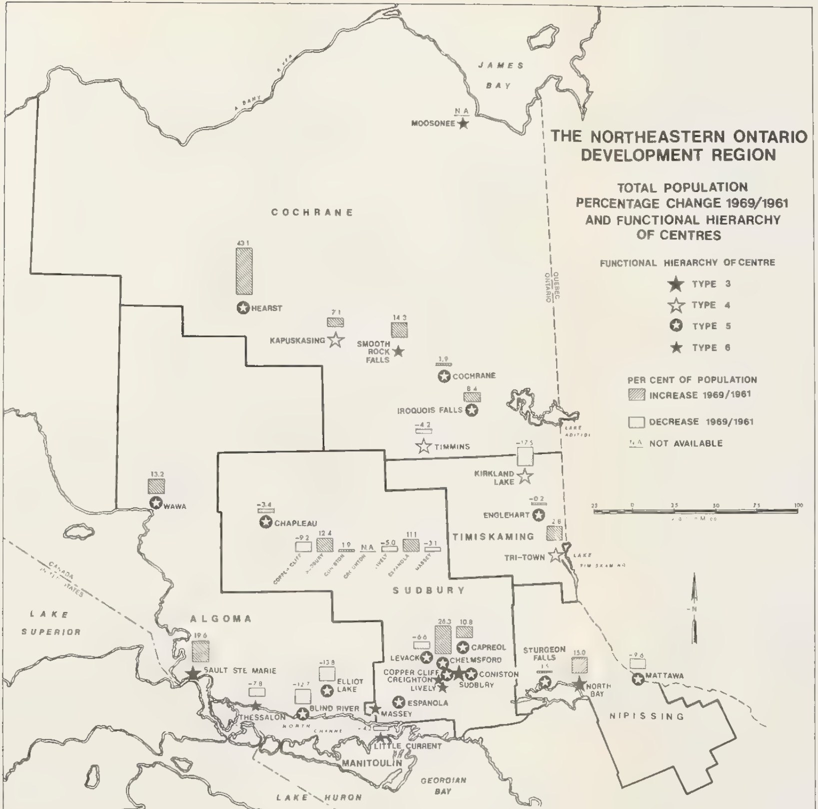


Figure 24

REGIONAL DEVELOPMENT REGION, DEPARTMENT OF TREASURY AND ECONOMICS

to determine the more rapidly growing communities of the region. This is not to say that rapidly growing centres are automatically equated with "growth centres". Other factors such as relative size, degree of integration with the provincial or regional economy and ability to promote further self-sustained growth, are also important in determining centres of opportunity.

Over the 1951-1966 period, nine centres in the North-eastern Ontario Region had an average annual rate of growth higher than the provincial average. However, most of this growth took place in the 1951-1961 decade. An analysis of the 1961-1966 time period shows that only three centres had an above average growth rate while twelve centres registered a decline in population. An analysis of the 1961 and 1969 assessed population figures (Department of Municipal Affairs) again indicates that only three centres had a growth rate exceeding the provincial average of 2.2 per cent per annum, while twelve centres experienced actual declines. Most centres are in fact experiencing only limited growth. To this must be added the fact that the overall growth rate in the region itself has been declining (see tables 6.1 and 6.2)

Spheres of Influence of Urban Centres

A number of factors can be said to determine the diversity and relative importance of a centre's tertiary activities, and consequently the size of its sphere of influence. The most important

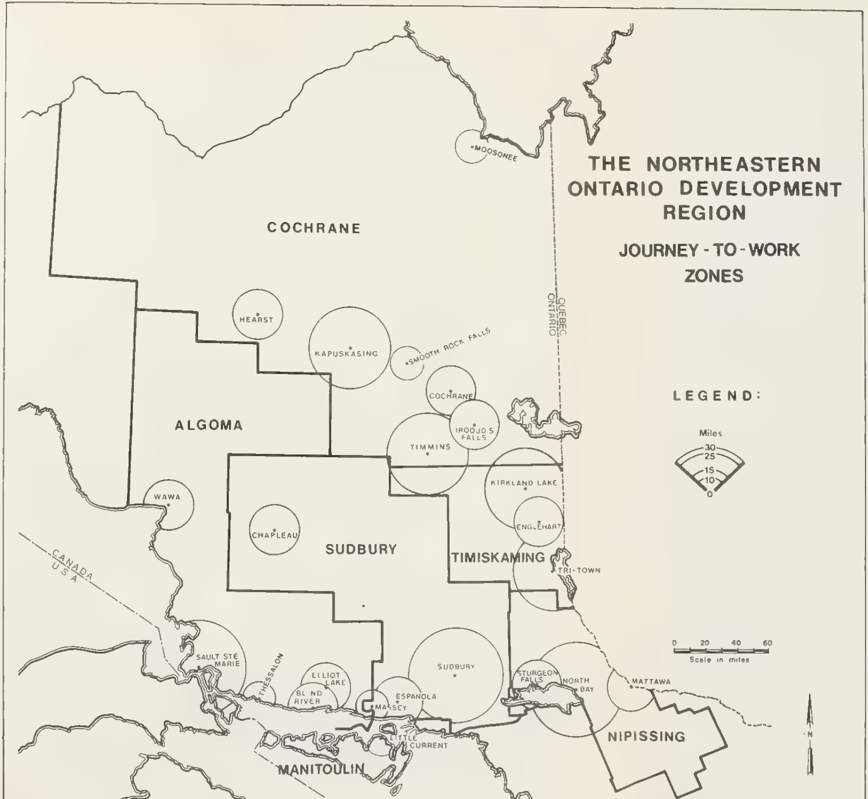


Figure 25

Regional Development Branch, Department of Treasury and Economics

TABLE 6.1

GROWTH RATES OF URBAN CENTRES

Centre	Average Annual Rate of Growth 1951/66	1961/66	1961/69	Assessed Population 1969
	%	%	%	No.
Regional Centre				
North Bay	5.7	- 0.1	1.8	44,574
Sault Ste. Marie	4.2	2.8	2.3	76,621
Sudbury	7.2	1.2	1.5	89,144
Sub-Regional Centre				
Kapuskasing	4.3	2.0	0.9	12,183
Kirkland Lake	- 0.4	- 2.0	- 2.4	14,918
Timmins	0.4	-	- 0.5	27,768
Tri-Town	1.2	1.7	1.5	10,624
Full Convenience Centre				
Blind River	2.5	- 2.5	- 1.7	3,440
Capreol	2.9	0.6	1.3	3,253
Chapleau	2.5	-	- 0.4	3,616
Chelmsford	5.6	1.5	3.0	3,207*
Cochrane	2.3	1.1	0.2	4,749
Coniston	1.1	-	0.2	2,732
Copper Cliff	- 0.7	- 0.5	- 1.2	3,339
Elliot Lake	n.a.	-11.8	- 1.8	9,515
Englehart	0.8	-	-	1,681
Espanola	n.a.	0.8	1.3	5,801
Hearst	3.5	4.0	4.6	3,385
Iroquois Falls	2.1	1.8	1.0	1,773*
Levack	3.4	- 1.0	- 0.8	2,921
Mattawa	0.1	- 1.1	- 1.3	2,924
Sturgeon Falls	1.8	0.5	0.2	6,424
Wawa	n.a.	0.7	1.6	4,750
Daily Shopping Centre				
Creighton	- 1.3	- 3.3	n.a.	n.a.
Little Current	0.2	- 1.1	- 0.5	1,505
Lively	n.a.	- 0.3	- 0.6	3,052
Massey	1.8	- 1.6	- 0.4	1,287
Moosonee	15.7	2.6	n.a.	n.a.
Smooth Rock Falls	0.5	1.0	1.7	1,135
Thessalon	0.4	- 0.5	- 1.0	1,649
Province of Ontario	2.8	2.2	2.2	7,079,653

The assessed population for municipalities is usually less than the census population.
*Estimated populations - these centres have been amalgamated with other municipalities.

Source: Dominion Bureau of Statistics, Census of Canada, Population 1951, 1961 and 1966.
Department of Municipal Affairs, Assessed Population, 1961 and 1969.

TABLE 6.2

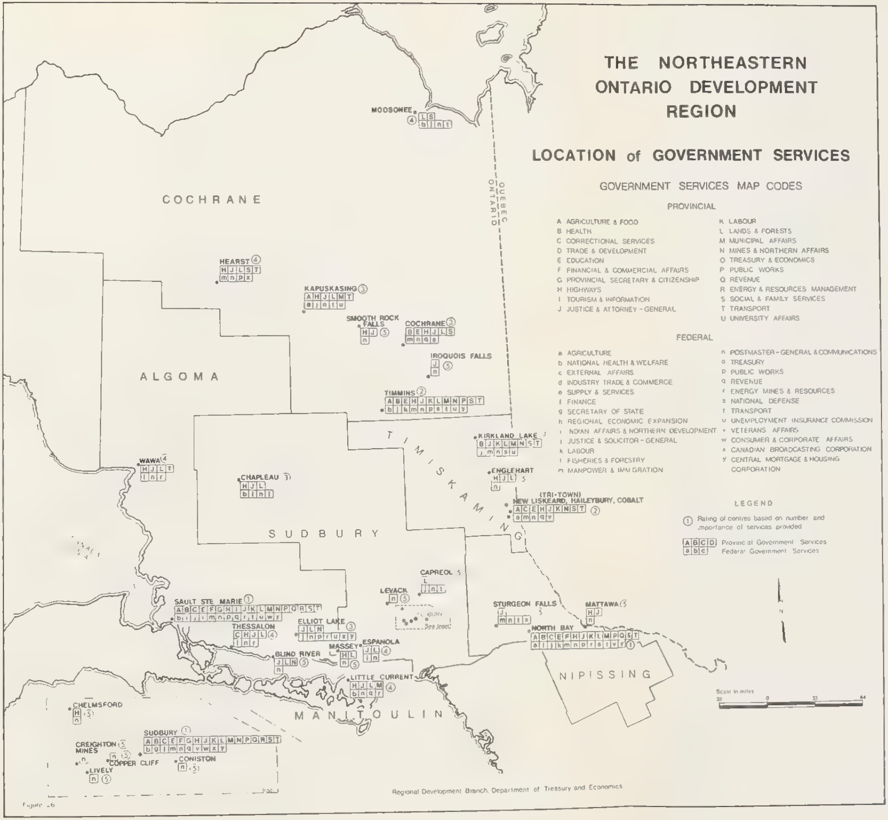
GROWTH RATES OF URBAN CENTRES AND THEIR SPHERE OF INFLUENCE

Centres	Population of Centres					Population of Spheres of Influence		
	1951	1961	1966	% Change 1951/66	% Change 1961/66	Population (1961)	Population (1966)	% Change 1961/66
Regional Centre								
North Bay	17,944	23,781	23,635	31.7	-0.6	78,126	81,115	3.8
Sault Ste. Marie	40,490	64,963	74,594	84.2	14.8	74,164	83,806	13.0
Sudbury	42,410	80,120	84,888	100.2	6.0	154,412	163,053	5.6
Sub-Regional Centre								
Kapuskasing	6,687	11,453	12,617	88.7	10.2	16,947	18,155	7.1
Kirkland Lake	18,392	17,422	15,784	-14.2	-9.4	32,414	29,414	-9.3
Timmins	27,743	29,270	29,303	5.6	0.1	56,982	55,951	-1.8
Tri-Town	8,791	9,743	10,587	20.4	8.7	19,944	20,653	3.6
Full Convenience Centre								
Blind River	2,512	4,093	3,617	44.0	-11.6	9,167	7,545	-17.7
Capreol	2,002	3,003	3,092	54.4	3.0	10,283	12,573	22.3
Chapleau	2,619	3,785	3,778	44.3	-0.2	4,022	4,173	3.8
Chelmsford	1,210	2,559	2,752	127.4	7.5	6,241	7,227	15.8
Cochrane	3,401	4,521	4,775	40.4	5.6	7,825	7,776	-0.6
Coniston	2,292	2,692	2,692	17.5	0.0	5,363	5,439	1.4
Copper Cliff	3,974	3,600	3,505	-11.8	-2.6	10,258	10,824	5.5
Elliot Lake	-	13,179	7,014	-	-46.8	26,242	17,848	-32.0
Englehart	1,585	1,786	1,790	12.9	0.2	6,582	6,419	-2.5
Espanola	-	5,353	5,567	-	4.0	12,946	13,071	1.0
Hearst	1,723	2,373	2,882	67.3	21.4	7,984	8,144	2.0

GROWTH RATES OF URBAN CENTRES AND THEIR SPHERE OF INFLUENCE (Cont'd.)

	Population of Centres					Population of Spheres of Influence		
Full Convenience Centre (Cont'd)	1951	1961	1966	% Change 1951/66	% Change 1961/66	Population (1961)	Population (1966)	% Change 1961/66
Iroquois Falls	1,342	1,681	1,834	36.7	9.1	8,191	8,032	-1.9
Levack	1,833	3,178	3,025	65.0	-4.8	6,322	6,717	6.3
Mattawa	3,097	3,314	3,143	1.5	-5.2	5,216	4,925	-5.6
Sturgeon Falls	4,962	6,288	6,430	29.6	2.3	14,186	13,569	-4.4
Wawa	-	4,439	4,927	-	11.0	4,827	5,411	12.1
Daily Shopping Centre								
Creighton	2,105	1,727	1,463	-30.5	-15.3	1,841	1,477	-19.8
Little Current	1,397	1,527	1,441	3.1	-5.6	2,297	2,182	-5.0
Lively	-	3,211	3,169	-	-1.3	7,111	7,694	8.2
Massey	937	1,324	1,223	30.5	-7.6	2,784	2,521	-9.5
Moosonee	124	975	1,110	795.2	13.8	1,102	1,658	50.5
Smooth Rock Falls	1,102	1,131	1,191	8.1	5.3	4,077	4,168	2.2
Thessalon	1,595	1,725	1,688	5.8	-2.1	5,405	4,812	-11.0

Source: D.B.S. Census of Canada, 1951, 1961 and 1966.


THE NORTHEASTERN ONTARIO DEVELOPMENT REGION
LOCATION of GOVERNMENT SERVICES
GOVERNMENT SERVICES MAP CODES
PROVINCIAL
A AGRICULTURE & FOOD
B HEALTH
C CORRECTIONAL SERVICES
D TRADE & DEVELOPMENT
E EDUCATION
F FINANCIAL & COMMERCIAL AFFAIRS
G PROVINCIAL SECRETARY & CITIZENSHIP
H HIGHWAYS
I TOURISM & INFORMATION
J JUSTICE & ATTORNEY - GENERAL
K LABOUR
L LANDS & FORESTS
M MUNICIPAL AFFAIRS
N MINES & NORTHERN AFFAIRS
O TREASURY & ECONOMICS
P PUBLIC WORKS
Q REVENUE
R ENERGY & RESOURCES MANAGEMENT
S SOCIAL & FAMILY SERVICES
T TRANSPORT
U UNIVERSITY AFFAIRS
FEDERAL
a AGRICULTURE
b NATIONAL HEALTH & WELFARE
c EXTERNAL AFFAIRS
d INDUSTRY TRADE & COMMERCE
e SUPPLY & SERVICES
f FINANCE
g SECRETARY OF STATE
h REGIONAL ECONOMIC EXPANSION
i INDIAN AFFAIRS & NORTHERN DEVELOPMENT
j JUSTICE & SOLICITOR - GENERAL
k LABOUR
l FISHERIES & FORESTRY
m MANPOWER & IMMIGRATION
n POSTMASTER - GENERAL & COMMUNICATIONS
o TREASURY
p PUBLIC WORKS
q REVENUE
r ENERGY MINES & RESOURCES
s NATIONAL DEFENSE
t TRANSPORT
u UNEMPLOYMENT INSURANCE COMMISSION
v VETERANS AFFAIRS
w CONSUMER & CORPORATE AFFAIRS
x CANADIAN BROADCASTING CORPORATION
y CENTRAL MORTGAGE & HOUSING CORPORATION
LEGEND
Rating of centres based on number and importance of services provided
Provincial Government Services
Federal Government Services
Scale in miles
COCHRANE
ALGOMA
SUDBURY
TIMISKAMING
NIPISSING
MANITOULIN
QUEBEC
ONTARIO
MOOSONEE
HEARST
KAPUSKASING
SMOOTH ROCK FALLS
COCHRANE
IROQUOIS FALLS
TIMMINS
KIRKLAND LAKE
ENGLEHART
(TRI-TOWN)
NEW LISKEARD, HAILEYBURY, COBALT
WAWA
CHAPLEAU
CAPREOL
LEVACK
SAULT STE MARIE
THESSALON
ELLIOT LAKE
ESPANOLA
MASSEY
BLIND RIVER
LITTLE CURRENT
STURGEON FALLS
MATTAWA
NORTH BAY
CHELMSFORD
SUDBURY
CREIGHTON MINES
COPPER CLIFF
CONISTON
LIVELY
Regional Development Branch, Department of Treasury and Economics
Figure 26

of these are:

i Accessibility in terms of both location and transportation facilities

ii The nature of its sphere of influence, that is its competitive position within the system

iii Quantity and variety of government services

iv Distance between centres

It should be pointed out that the above factors only distinguish between centres of approximately equal size. In absolute terms, population size is by far the most important determinant of a centre's sphere of influence because economies of scale allow the larger centres to produce a much greater variety of goods and services. However, while it is true that the larger centres offer a greater variety of goods and services, a distinct relationship between urban size and the relative importance of the tertiary sector and its sphere of influence has not been discovered.

Industrial Mix of Urban Centres

The crucial variable examined in our analysis of the economic base of centres in Northeastern Ontario is the primary-secondary-tertiary ratio amongst industries. The economic base of a centre is of course one of its most important structural characteristics. Not only does it indicate a centre's dependence upon one or more industries, but it also provides some indication of the magnitude of its income leakages. A service centre, for example,

will be in a better position to meet increasing local demands than a centre with a very narrow economic base. In evaluating these types of inter-relationships, however, a very detailed knowledge of the economic base of all of the important centres in Northeastern Ontario is required.

Methodology The primary-secondary-tertiary ratio provides a measure of the degree of processing carried on in a particular centre. A low degree of processing usually indicates that a centre is undeveloped, but also points to possible areas of future improvement.

In general, one would expect the larger centres of North Bay, Sault Ste. Marie and Sudbury to have similar characteristics. This, however, is not the case. Each centre has its own area of specialization, having a predominant proportion of its labour force in tertiary, secondary and primary industries, respectively (see table 6.3).

Of the four medium-sized centres in Northeastern Ontario, two are mining-based communities (Timmins, Kirkland Lake), one is forest-based (Kapuskasing), and one is characterized by a diversified economic base (Tri-Town). One characteristic common to all four centres is the rapid shift towards tertiary functions which, in part, offset the decline of their traditional economic base.

TABLE 6.3

ECONOMIC BASE: COMPOSITION OF THE LABOUR FORCE BY INDUSTRY DIVISION, 1961

Urban Centre	Total Labour Force	Agriculture		Fishing, Trapping & Forestry		Mining		Manufacturing		Construction		Transportation, Communication & Utilities	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Regional Centre													
North Bay	8,693	7	0.1	48	0.6	40	0.5	849	9.8	594	6.8	1,850	21.2
Sault Ste. Marie	16,680	35	0.2	144	0.9	55	0.3	6,395	38.4	1,209	7.2	1,355	8.1
Sudbury	30,077	41	0.1	123	0.4	8,099	26.9	3,972	13.2	1,801	6.0	2,110	7.0
Sub-Regional Centre													
Kapuskasing	2,501	4	0.2	163	6.5	3	0.1	1,151	46.0	82	3.2	130	5.2
Kirkland Lake	6,453	3	0.1	143	2.2	2,026	31.3	502	7.8	295	4.6	563	8.7
Timmins	10,274	10	0.1	340	3.3	3,564	34.7	528	5.1	566	5.5	732	7.1
Tri-Town	3,084	15	0.5	12	0.4	313	10.1	381	12.4	155	5.0	403	13.1
Full Convenience Centre													
Blind River	1,422	2	0.1	76	5.3	114	8.0	310	21.9	91	6.4	134	9.4
Capreol	967	0	0.0	1	0.1	142	14.7	25	2.6	6	0.6	536	55.5
Chapleau	1,340	0	0.0	138	10.3	2	0.2	197	14.7	30	2.2	468	34.9
Chelmsford	712	4	0.6	3	0.4	270	37.9	37	5.2	78	11.0	30	4.2
Cochrane	1,647	1	0.1	162	9.8	1	0.1	53	3.2	141	8.6	387	23.5
Coniston	838	0	0.0	0	0.0	180	21.5	326	38.9	25	3.0	46	5.5
Copper Cliff	1,417	0	0.0	1	0.1	896	63.3	48	3.4	40	2.8	27	1.9
Elliot Lake	4,803	1	0.0	8	0.2	3,080	64.1	118	2.5	60	1.2	94	2.0
Englehart	536	4	0.7	19	3.5	4	0.7	26	4.9	11	2.1	226	42.2
Espanola	1,656	3	0.2	40	2.4	25	1.5	760	45.9	66	4.0	86	5.2
Hearst	812	0	0.0	160	19.7	5	0.6	34	4.2	51	6.3	102	12.6
Iroquois Falls	557	0	0.0	21	3.8	0	0.0	358	64.2	3	0.5	12	2.2
Levack	1,079	0	0.0	4	0.4	842	78.1	9	0.8	3	0.3	12	1.1
Mattawa	1,047	1	0.1	129	12.3	2	0.2	254	24.2	53	5.1	129	12.3
Sturgeon Falls	1,720	4	0.2	74	4.3	11	0.6	464	27.0	93	5.4	86	5.0
Wawa	1,691	1	0.1	21	1.2	858	50.8	14	0.8	99	5.9	156	9.2
Daily Shopping Centre													
Creighton	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Little Current	520	4	0.8	7	1.3	3	0.6	29	5.6	26	5.0	131	25.2
Lively	908	1	0.1	0	0.0	515	56.6	135	14.9	5	0.6	13	1.4
Massey	353	5	1.4	21	5.9	33	9.3	85	24.2	22	6.2	52	14.7
Moosonee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Smooth Rock Falls	399	0	0.0	12	3.0	0	0.0	214	53.6	1	0.3	16	4.0
Thessalon	477	2	0.4	44	9.2	0	0.0	56	11.7	35	7.3	60	12.6

ECONOMIC BASE: COMPOSITION OF THE LABOUR FORCE BY INDUSTRY DIVISION, 1961 (Cont'd.)

Urban Centre	Trade		Finance, Insurance & Real Estate		Personal Services		Government		Not Stated		Primary	Secondary	Tertiary
	No.	%	No.	%	No.	%	No.	%	No.	%	%	%	%
Regional Centre													
North Bay	1,522	17.5	292	3.4	2,126	24.4	993	11.4	372	4.3	1.2	16.6	77.9
Sault Ste. Marie	2,533	15.2	434	2.6	3,202	19.2	792	4.7	526	3.2	1.4	45.6	49.8
Sudbury	4,648	15.5	853	2.8	5,988	20.0	1,351	4.5	1,091	3.6	27.4	19.2	49.8
Sub-Regional Centre													
Kapuskasing	295	11.8	54	2.2	424	17.0	89	3.6	106	4.2	6.8	49.2	39.8
Kirkland Lake	1,058	16.4	187	2.9	1,210	18.8	235	3.6	231	3.6	33.6	12.4	50.4
Timmins	1,651	16.1	266	2.6	1,764	17.2	361	3.5	492	4.8	38.1	10.6	46.5
Tri-Town	611	19.8	92	3.0	793	25.7	197	6.4	112	3.6	11.0	17.4	68.0
Full Convenience Centre													
Blind River	204	14.3	31	2.2	297	20.9	84	5.9	79	5.6	13.4	28.3	52.7
Capreol	69	7.1	8	0.8	116	12.0	33	3.4	31	3.2	14.8	3.2	78.8
Chapleau	165	12.3	19	1.4	204	15.2	41	3.1	76	5.7	10.5	16.9	66.9
Chelmsford	88	12.4	20	2.8	119	16.7	16	2.2	47	6.6	38.9	16.2	38.3
Cochrane	244	14.8	25	1.5	409	24.8	157	9.5	67	4.1	10.0	11.8	74.1
Coniston	78	9.3	15	1.8	118	14.1	33	3.9	17	2.0	21.5	41.9	34.6
Copper Cliff	109	7.7	24	1.7	199	14.0	50	3.5	23	1.6	63.4	6.2	28.8
Elliot Lake	408	8.5	86	1.8	710	14.8	156	3.2	82	1.7	64.3	3.7	30.3
Englehart	94	17.5	10	1.9	105	19.6	27	5.0	10	1.9	4.9	7.0	86.2
Espanola	230	13.9	13	0.8	315	19.0	45	2.7	73	4.4	4.1	49.9	41.6
Hearst	121	14.9	13	1.6	261	32.1	29	3.6	36	4.4	20.3	10.5	64.8
Iroquois Falls	24	4.3	7	1.3	99	17.8	13	2.3	20	3.6	3.8	64.7	27.9
Levack	48	4.4	8	0.7	111	10.3	17	1.6	25	2.3	78.5	1.1	18.1
Mattawa	124	11.8	11	1.1	250	23.9	47	4.5	47	4.5	12.6	29.3	53.6
Sturgeon Falls	300	17.4	39	2.3	489	28.5	89	5.2	71	4.1	5.1	32.4	58.4
Wawa	176	10.4	16	0.9	252	14.9	49	2.9	49	2.9	52.1	6.7	38.3
Daily Shopping Centre													
Creighton	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Little Current	133	25.5	11	2.1	127	24.4	18	3.5	31	6.0	2.7	10.6	80.7
Lively	56	6.2	16	1.8	107	11.8	13	1.4	47	5.2	56.7	15.5	22.6
Massey	54	15.4	6	1.7	49	13.9	4	1.1	22	6.2	16.6	30.4	46.8
Moosonee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Smooth Rock Falls	36	9.0	5	1.3	70	17.5	6	1.5	39	9.8	3.0	53.9	33.3
Thessalon	95	19.9	7	1.5	128	26.9	38	8.0	12	2.5	9.6	19.0	68.9

n.a. Not available.

Source: Canada, Dominion Bureau of Statistics, Census of Canada, Labour Force, 1961 and Calculations by the Regional Development Branch.

The majority of the smaller centres in the region are characterized by a narrow economic base and are usually dependent upon the continued exploitation of primary resources. Blind River, Capreol, Chelmsford, Cochrane, Coniston, Copper Cliff, Elliot Lake, Espanola, Hearst, Iroquois Falls, Levack, Sturgeon Falls and Wawa all fall into this category. As has been the case in Blind River and Elliot Lake, cessation or rapid decline of its main economic activity will usually result in extreme hardship to the community.

Chapleau, while having an equally narrow economic base is strategically located as a transportation centre. Mattawa, the only remaining centre in this classification has a fairly diversified economic base.

The remaining centres (daily shopping) are characterized by their limited range of economic activity. Moreover, prospects for future growth do not appear very encouraging. Future growth in centres such as Creighton and Lively will, of course, be a function of growth in the Sudbury Basin. Little Current, Massey, Moosonee and Thessalon are neither large enough nor suitably located to compete effectively for future regional growth without the assistance of special incentives.

Water and Sewage

The infrastructure of an urban centre determines both the

quality of life of its residents and its ability to attract and accommodate further development. The water and sewage disposal system is a major component of this infrastructure. Water is obviously a vital commodity for people and industry, while untreated sewage creates severe pollution problems which in turn limit the growth potential.

The development of water distribution and sewage disposal systems is a long and expensive enterprise. Therefore, it is not surprising that in regions such as Northeastern Ontario, where development has occurred suddenly and in relatively recent times, there has not always been the time and funds to develop appropriate facilities.

In the Northeast, 11 urban centres are without a central system for collecting and treating sewage facilities, five have overloaded sewage facilities, and three have less than 15 per cent excess capacity. Nineteen centres, therefore, are without adequate sewage disposal facilities.

Piped water systems, however, are present in all centres. Ontario Water Resources Commission personnel feel that a water distribution system should be able to handle $1\frac{1}{2}$ times the average monthly consumption. This means that a centre's water system should have at least an average excess pumping capacity of 33 per cent. Only three centres in the Northeast fall short of this mark.

Transportation and Accessibility

The accessibility of urban centres is dependent on their transportation facilities and their relative location. The degree to which centres are accessible to other centres both within and outside a region has certain economic consequences. Accessibility is given major consideration in the process of choosing a location for secondary and tertiary industries. Consequently, it influences the allocation of new and improved functions to settlement areas. It also determines, to a certain extent, the growth potential of individual centres and their ability to accommodate such growth.

The evaluation of the accessibility of Northeastern Ontario urban centres involves the analysis of relative location as well as the availability of various modes of transportation, including road, rail, air and water.

The largest centres, North Bay, Sault Ste. Marie and Sudbury, enjoy excellent transportation facilities which, combined with certain locational advantages, make for relatively superior accessibility within the region as well as outside.

The four medium-sized centres of Timmins, Kapuskasing, Kirkland Lake and Tri-Town have a very much lower order of local transportation facilities and accessibility. Common to all four centres is the locational disadvantage of being farther north and

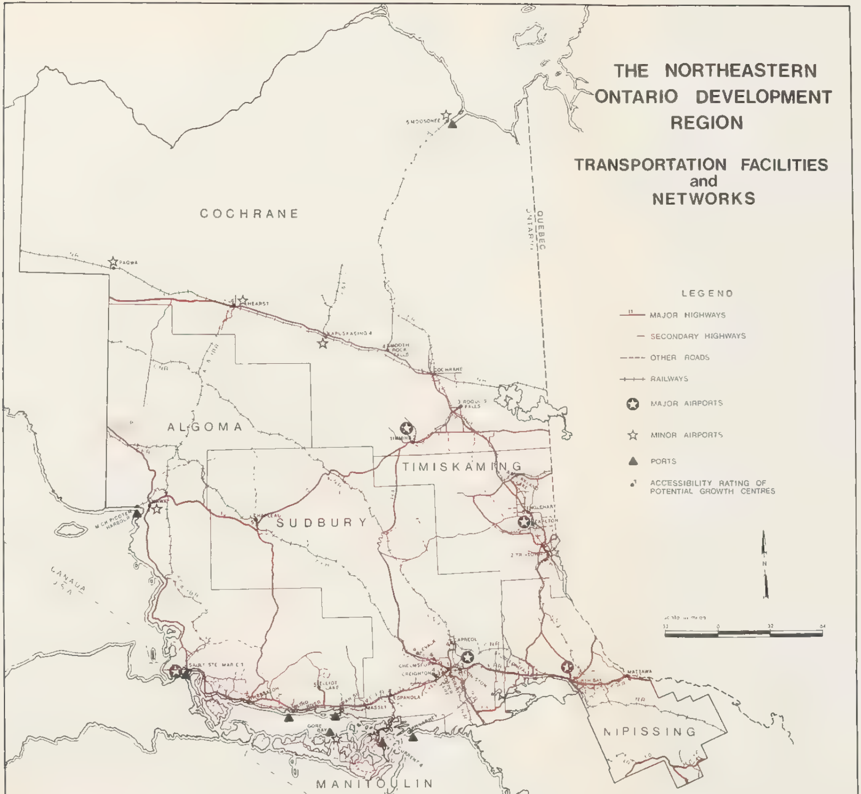


Figure 27
Regional Development Branch, Department of Treasury and Economics

farther away from the major markets of southern Ontario than the three largest centres. Only Timmins is served by a major airport. Although rail facilities are adequate, none of the centres enjoys the economic advantages of port facilities within easy access.

With a few exceptions, smaller centres have comparable transportation facilities; most have access to at least a major highway and railway. What primarily affects their accessibility is their relative location vis-a-vis other centres. For instance, the mining towns surrounding Sudbury can be considered highly accessible as they can take advantage of the transportation facilities available at Sudbury. Such centres as Wawa and Chapleau, however, because they are somewhat removed from the populated areas of the region, are relatively inaccessible. Notable exceptions are Cochrane, which owes its surprisingly high accessibility to its location at the junction of the CNR and ONR railway lines, and Elliot Lake, whose exceptionally low accessibility rating is due to its relative distance from main transportation services. The latter centre's location was determined by mineral deposits. Moosonee, without road access, has the lowest accessibility rating.

Housing

Housing conditions in the region vary considerably in both type and condition of dwelling.

TABLE 6.4

NORTHEASTERN ONTARIO - OCCUPIED DWELLINGS, 1966

Centre	Total Dwellings	Type Of Dwelling								Tenure			
		Single Detached		Single Attached		Apartment or Flat		Mobile Home		Owned		Rented	
	No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Regional Centre													
North Bay	6,390	3,918	61.3	420	6.6	2,051	32.1	1	-	3,821	59.8	2,569	40.2
Sault Ste. Marie	18,626	13,442	72.1	1,032	5.6	4,117	22.1	35	0.2	13,414	72.0	5,212	28.0
Sudbury	21,486	10,881	50.6	2,053	9.6	8,552	39.8	-	-	11,606	54.0	9,880	46.0
Sub-Regional Centre													
Kapuskasing	2,892	1,617	55.9	243	8.4	1,028	35.6	4	0.1	1,741	60.2	1,151	39.8
Kirkland Lake	4,604	2,246	48.8	181	3.9	2,173	47.2	4	0.1	2,503	54.4	2,101	45.6
Timmins	7,533	4,423	58.7	458	6.1	2,651	35.2	1	-	4,152	55.1	3,381	44.9
Tri-Town	2,755	1,997	72.5	195	7.1	560	20.3	3	0.1	1,920	69.7	835	30.3
Full Convenience Centre													
Blind River	894	663	74.2	72	8.0	150	16.8	9	1.0	570	63.8	324	36.2
Capreol	797	656	82.3	30	3.8	110	13.8	1	0.1	578	72.5	219	27.5
Chapleau	n.a.	n.a.		n.a.		n.a.		n.a.		n.a.		n.a.	
Chelmsford	569	391	68.8	48	8.4	130	22.9	-	-	361	63.4	208	36.6
Cochrane	1,156	676	58.5	99	8.6	370	32.0	11	0.9	653	56.5	503	43.5
Coniston	632	497	78.6	59	9.4	76	12.0	-	-	382	60.4	250	39.6
Copper Cliff	951	542	57.0	156	16.4	253	26.6	-	-	287	30.2	664	69.8
Elliot Lake	n.a.	n.a.		n.a.		n.a.		n.a.		n.a.		n.a.	
Englehart	516	414	80.2	19	3.7	83	16.1	-	-	377	73.1	139	26.9
Espanola	1,314	1,074	81.7	124	9.4	111	8.5	5	0.4	950	72.3	364	27.7
Hearst	616	323	52.4	38	6.2	245	39.8	10	1.6	322	52.3	294	47.7
Iroquois Falls	420	282	67.1	118	28.1	20	4.8	-	-	213	50.7	207	49.3
Levack	613	382	62.3	133	21.7	98	16.0	-	-	43	7.0	570	93.0
Mattawa	714	539	75.5	76	10.6	88	12.3	11	1.6	447	62.6	267	37.4
Sturgeon Falls	1,462	1,021	69.8	179	12.2	261	17.9	1	0.1	968	66.2	494	33.8
Wawa	n.a.	n.a.		n.a.		n.a.		n.a.		n.a.		n.a.	
Daily Shopping Centre													
Creighton	n.a.	n.a.		n.a.		n.a.		n.a.		n.a.		n.a.	
Little Current	429	372	86.7	23	5.4	30	7.0	4	0.9	309	72.0	120	28.0
Lively	677	537	79.3	132	19.5	8	1.2	-	-	39	5.8	638	94.2
Massey	280	249	88.9	22	7.9	9	3.2	-	-	212	75.7	68	24.3
Moosonee	n.a.	n.a.		n.a.		n.a.		n.a.		n.a.		n.a.	
Smooth Rock Falls	270	185	68.5	71	26.3	14	5.2	-	-	73	27.0	197	73.0
Thessalon	455	384	84.4	25	5.5	44	9.7	2	0.4	323	71.0	132	29.0

\- Nil
n.a. Figures not available for towns of less than 1,000 people or for municipalities less than 10,000 people.

Source: Dominion Bureau of Statistics, *Census of Canada, Housing*, 1966.

TABLE 6.5

NORTHEASTERN ONTARIO - OCCUPIED DWELLINGS, 1961

Centre	Total Dwellings	Period Of Construction: Before 1920	1920-1945	1946-1961	1960-1961	Condition Of Dwelling: Good	In Need of Minor Repair	In Need of Major Repair
Regional Centre								
North Bay	6,135	2,000	1,726	2,212	197	4,642	1,148	345
Sault Ste. Marie	11,053	4,219	2,470	3,949	415	7,841	2,512	700
Sudbury	19,526	1,818	8,200	9,001	507	14,369	4,102	1,055
Sub-Regional Centre								
Kapuskasing	1,622	--	697	862	--	1,257	330	35
Kirkland Lake	4,794	230	4,173	366	25	2,592	1,765	437
Timmins	7,311	1,097	5,166	882	166	4,533	1,951	807
Tri-Town	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Full Convenience Centre								
Elliot Lake	2,830	--	--	2,772	--	2,577	223	30
Espanola	1,249	131	467	615	36	807	307	135
Sturgeon Falls	1,384	554	315	475	40	799	365	220

-- Under 100.
n.a. Figures not available for towns of less than 5,000 people or for municipalities less than 10,000 people.

Source: Dominion Bureau of Statistics, Census of Canada, Housing, 1961.

In the three main regional centres of North Bay, Sault Ste. Marie and Sudbury, housing conditions are among the best in the region and reflect the well-developed nature of these cities. They have a large proportion of their dwellings in good condition, a substantial number of apartments and good municipal services. However, in all three centres, a considerable amount of residential construction should occur over the next few decades to relieve the existing housing shortage, especially of single family homes and of apartments, and also to allow for continued development.

With the possible exception of Kapuskasing, most other centres have a considerable proportion of substandard housing. Most of these centres have a serious shortage of rental accommodation, especially family homes and apartments, and in many of the centres rehabilitation or replacement of dwellings is necessary. Although the future population growth is expected to be very gradual, the rate of residential construction will have to increase, not only to house the additional employees in the basic industries but also the service and professional people associated with the total development of any urban centre.

Availability of Industrial Sites

Once an industry has chosen a region in which to establish a new plant, it evaluates the advantages and disadvantages that various urban locations have to offer. One of the main items to be

analyzed is the availability of industrial sites. The size, cost and quality of services of a centre's industrial land may largely influence its success in attracting new industries.

Most of the centres in Northeastern Ontario have land set aside for industrial purposes. In fact, only three centres, Copper Cliff, Levack and Lively have no industrial sites to offer. This can be attributed to their nearness to Sudbury, which places them at a highly competitive disadvantage as they would find it extremely difficult to attract new industries because of Sudbury's dominant presence in the area. Prime zoned industrial sites, however, are generally restricted to the larger centres of the region; most smaller centres have few amenities to offer potential industrial customers.

Summary of Evaluation Factors for Centres of Opportunity

The preceding analysis of urban centres in the Northeastern Ontario Region was concerned with the discussion of population growth, spheres of influence, industry mix and quality of the infrastructure. Within its boundaries, Northeastern Ontario has 139 incorporated cities, towns, villages and townships, in addition to some unorganized territories and Indian Reserves. Population size of the organized municipalities ranges from Sudbury, with a population of 84,888 to the Township of Cockburn Island in the District of Manitoulin, with a population of 6. The potential

for future development of 30 urban centres in Northeastern Ontario, all with a population greater than 1,000, has been analyzed.

The rating for each centre, according to the following 14 selection criteria, appears in Table 6.7 at the end of this section.

1. Functional Type of Centre

Type	Population
1. Megalopolitan Centre	500,000 +
2. Supra-regional Centre	250,000 - 500,000
3. Regional Centre	42,000 - 300,000
4. Sub-regional Centre	7,800 - 50,000
5. Full Convenience Centre	800 - 9,000
6. Daily Shopping Centre	220 - 1,500

The population ranges overlap, since the classification is based on the function the centres perform and their relative location in a region.

In Northeastern Ontario, North Bay, Sault Ste. Marie and Sudbury were classified as Regional Centres, and Kapuskasing, Kirkland Lake, Timmins and the Tri-Town were classified as Sub-regional Centres. There were considered to be 16 Full Convenience Centres and 7 Daily Shopping Centres. These 30 Centres of Opportunity accounted for 62.6 per cent of the region's population in 1966.

2 and 3. Trade Area Size and Trading Area Population 1966

These two indicators were used to assess the spheres of influence of the 30 selected centres of opportunity. It should be noted that in many cases, the spheres of influence of adjacent centres overlap. Over 90 per cent of the region's population live within these spheres of influence. The centres were ranked from a high of 1 to a low of 5, depending on the size and population of their trade areas. This ranking of 1-5 is applied to all of the following 11 selected measures.

4. Wholesale Sales 1961

Although data are not available for all centres, wholesale sales are a useful measure in an analysis of urban growth centres, indicating whether or not a centre performs a high order tertiary function.

5. and 6. Manufacturing Employment 1968 and Percent Change 1961 to 1968

These criteria are intended to reflect the importance of manufacturing in the economic base of the urban area.

7. Provincial and Federal Government Services

Government Services provided are weighted to reflect the number of people and size of geographic area served.

8. Population Growth of Centres, Per Cent Change, 1961 to 1969

Assessed change in population between 1961 and 1969 was the basis for this classification. The third rating approximates the provincial average.

9. Retail Sales, Per Cent Change, 1961 to 1966

This growth measure reflects the degree to which the centre functions as a service centre and whether this function has increased over the time period.

10. Growth Prospects of the Economic Base

A preliminary assessment was made of the growth orientation of the economy of each centre. It will be subject to revision at a later stage.

11. Accessibility Rating

The purpose of this measure is to determine the ease with which communities are in contact with each other. Road, rail, air and water accessibility were considered.

12. Cultural and Recreational Facilities

This measure indicates the availability of both local amenities and unique cultural and recreational attractions to each centre.

13. Water and Sewer Spare Capacity

Water and Sewage facilities were ranked in terms of unused capacities.

14. Availability of Industrial Sites

The potential success of urban centres in attracting new manufacturing plants must, in part, depend on the availability and quality of suitable industrial sites.

All 30 urban centres of opportunity in Northeastern Ontario have been given ratings of 1-5, for each measure of selection, wherever data were available (Table 6.7). This analysis indicates past performance, current levels of socio-economic development and the needs of individual centres.

TABLE 6.6

PRELIMINARY ANALYSIS OF SELECTED MEASURES OF URBAN GROWTH POTENTIAL
NORTHEASTERN ONTARIO DEVELOPMENT REGION

SELECTED MEASURES \ URBAN CENTRES	Blind River	Capreol	Chapleau	Chelmsford	Cochrane	Coniston	Copper Cliff	Creighton	Elliot Lake	Englehart	Espanola	Hearst	Iroquois Falls	Kapuskasing	Kirkland Lake	Levack	Little Current	Lively	Massey	Mattawa	Moosonee	North Bay	Sault Ste. Marie	Smooth Rock Falls	Sturgeon Falls	Sudbury	Thessalon	Timmins	Tri-Town	Wawa
Functional Type of Centre	5	5	5	5	5	5	5	6	5	6	5	5	5	4	4	5	6	6	6	5	6	3	3	6	5	3	6	4	4	5
Trade Area Size	3	5	4	5	3	5	5	5	2	3	3	3	3	2	2	5	4	5	5	3	1	1	1	4	3	1	4	1	2	4
Trade Area Population 1966	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	3	3	5	5	2	5	3	5	5
Wholesale Sales 1961	-	-	-	-	-	-	-	-	-	-	4	-	-	4	-	-	-	-	-	-	-	3	2	-	4	1	-	3	-	-
Manufacturing Employment 1968	-	-	-	-	-	-	-	-	-	-	4	-	4	3	5	-	-	-	-	-	-	4	2	5	4	1	-	5	4	-
Provincial and Federal Government Services	5	5	3	5	3	5	5	5	3	5	4	4	5	3	3	5	4	5	5	5	4	1	1	5	4	1	4	2	2	4
Population Growth of Centre, % Change 1961 to 1968	5	3	4	2	4	4	5	-	5	5	3	1	3	1	5	5	4	5	4	5	-	1	1	2	4	3	5	4	4	-
Retail Sales, % Change 1961 to 1968	4	2	-	5	3	4	4	-	4	2	3	1	4	4	-	4	4	3	4	2	-	5	3	2	4	4	4	4	4	-
Manufacturing Employment, %Change 1961 to 1968	-	-	-	-	-	-	-	-	-	-	4	-	4	4	3	-	-	-	-	-	-	2	3	4	3	4	-	4	2	-
Growth Prospects of the Economic Base	5	3	4	3	4	3	3	3	2	4	3	3	3	3	4	3	5	3	4	4	5	1	1	3	3	1	5	3	3	4
Accessibility Rating	3	4	5	5	3	3	2	4	5	3	4	4	3	4	4	4	4	3	4	4	5	1	1	4	4	1	5	2	2	4
Cultural and Recreational Facilities	4	4	4	4	4	4	4	5	4	5	4	4	4	3	2	4	5	5	5	4	5	1	1	5	4	1	5	2	2	4
Water and Sewer Spare Capacity	4	2	3	3	1	3	2	4	3	2	2	4	4	4	4	1	2	1	4	3	1	3	3	4	4	4	4	3	3	3
Availability of Industrial Sites	4	4	4	4	4	4	5	-	4	4	3	4	1	1	4	5	4	5	4	4	-	3	2	4	2	1	4	4	1	4

Note: Data are not available or applicable, where centre is marked -.

Source: Regional Development Branch, Department of Treasury and Economics.

CHAPTER VII

REGIONAL GOALS, NEEDS AND PRIORITIES

Introduction

This report began with a discussion of broad provincial goals for attaining the full social, economic and physical development potential of the Northeastern Ontario Region. Whether these goals are defined in terms of employment opportunities, social services or environmental protection, they all reflect the search for an enhanced quality of "livability" which is a concern shared by all ten Ontario regions, and indeed by all provinces of Canada.

What does differ from region to region is the nature and severity of the local problems which must be overcome if each is to attain these goals. While the principal purpose of this phase of the regional development program is to identify the problems and needs of the region, later phases will be concerned with devising strategies and plans for solving these problems and guiding future development.

As noted in the 1966 White Paper, Design for Development, Phase I, "Much of Ontario's regional development program will be accomplished by a thorough-going coordination of the programs, policies and spending of government departments... on a regional basis." One of the prerequisites to effective use of the provincial

budget as a mechanism for carrying out regional plans is the classification of all provincial program spending according to the types of problems and needs these programs are designed to serve.

Currently, each provincial department is engaged in a coordinated planning program of defining its own overall departmental goals and problem-solving program objectives. Since the problems with which these provincial programs are concerned all reflect the local needs of one or more regions in Ontario, our regional development plans must ultimately reflect the program objectives being defined by individual departments and their budgetary plans for solving these specific problems.

Rather than duplicate these parallel provincial efforts to define program objectives, this report addresses itself to the equally important task of supplying the essential regional ingredient to what is an overall provincial planning program - that is, providing an assessment of priorities among the major needs of each district and of the entire Northeastern Ontario Region. To maintain coordination with program planning and permit inter-regional comparison, potential regional needs have been standardized and classified in accordance with the eight broad functional categories being used for provincial program analysis.

For some of the issues covered, inadequate data preclude a staff judgement of local priorities at this time. In many other

instances, our assessment must be considered as tentative. Major efforts have been made to incorporate the recommendations of other provincial departments and, since the best knowledge of regional needs can often be determined only by those who enjoy a day-to-day contact with local problems and aspirations, extensive use has been made of the Northeastern Ontario Development Council's own five-year program recommendations.

One of the most important purposes of this report is to provide the Regional Development Council and the Regional Advisory Board with an opportunity to review local priorities and, with the participation of local municipalities and private citizens, to assist the Ontario Government in achieving a full appreciation of those regional conditions to which plans and the provincial budget should be directed.

Identification of goals, needs and priorities

The goals framework is basically a means of allocating scarce resources, both geographically and by function, among unlimited needs. Priorities among goals will determine the functional allocation, while regional needs will determine the most desirable spatial allocation. The following discussion will be primarily concerned with isolating regional needs, rather than choosing priorities among the functional goals. The most appropriate allocation of resources among goals will, to some extent, be chosen by the communities of the region.

Regional planning, therefore, involves a partnership approach. While it is the function of research to make a preliminary assessment of needs, local inhabitants must reassess those needs in terms of their own community aspirations.

To illustrate how priorities can differ among communities, it is only necessary to observe the priority Canada has given to developing the north, compared to that which the United States has given to space explorations.

A recent example of how priorities can change over time is provided by the increasing concern over pollution control. It should, therefore, be emphasized that the initial ordering of priorities suggested in this study will be subject to revision as new urgencies and priorities evolve.

There are eight functional categories within which goals have been formulated. These are:

Economic Development
Transportation and Communication
Community and Regional Environment
Social and Economic Welfare
Public Safety
Health
Education
Recreation and Culture

The remainder of this chapter will be concerned with a discussion of each of these goals and the most urgent needs of the region in their respective functional areas.

Each of the functional categories to be examined begins with a general goals statement. Using this as a reference, the needs and priorities of the region and its districts can be more clearly identified. To facilitate this analysis, the most crucial problem-indicators related to specific goals have also been identified. The provincial average has been used as the bench-mark or standard in determining the relative performance of each district. This is not to say that the provincial average is in some sense optimal, but only that it provides a common denominator to which all regions can relate.

The discussion is then summarized into a table showing the needs of the Northeastern Ontario Region and its districts, for the selected indicators within the eight functional categories. The legend used throughout will be:

H high need
M medium need
L low need
? insufficient information to make staff judgement
n.a. need not applicable to this district or region

1. Economic Development

GOAL: To assist each region to attain its full potential for economic development, consistent with orderly and rational development of the province as a whole.

The major problem confronting the Northeastern Ontario Region is the slow growth rate experienced by the main portion of its industrial sector. This, combined with the lack of diversification, has prevented the region from developing a viable and self-sustaining economic base. The low population density has in the past prevented the establishment of growth-oriented manufacturing. The complete removal of this barrier to economic growth is unlikely in the near future. Existing industries in the region must therefore be encouraged to take maximum advantage of their competitive position.

Problem Identification (i) Per capita income in Northeastern Ontario is below the provincial average. While there are indications that the gap is closing, a need for further improvement in this direction is evident. The need is especially urgent in the District of Manitoulin, and, to a lesser extent, in the districts of Cochrane, Nipissing and Timiskaming. Only the districts of Algoma and Sudbury have a per capita income approximating that of the provincial average.

(ii) The level of productivity, as well as changes in productivity have been very impressive, especially in mining, forestry and primary manufacturing. All three sectors are highly capital intensive, possessing a high level of technology. The size of the firms suggests that capital availability is not a constraint in implementing further productivity improvements.

The situation in other sectors, particularly the agricultural and service sectors, is substantially different, and there is a definite lag between the type of technology available and that employed in the region. In agriculture, the main reasons for this are farm size, availability of capital and the generally low educational level of farm operators. In services, the fragmented market has not allowed the degree of specialization nor the type of operation which would permit increased specialization and economies of scale. Again, the District of Manitoulin is the most seriously affected. Other districts are affected to the degree to which these sectors predominate.

The region has been unable to increase its productive capacity at a rate capable of absorbing an ever increasing labour force. This has resulted in substantial out-migration.

(iii) One of the most serious problems confronting the regional economy has been its slow population growth as a result of high out-migration. The limited number of employment opportunities,

TABLE 7.1

ECONOMIC DEVELOPMENT NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Increase per capita income and productivity	L	M	H	H	L	M	M
Increase productivity in the agricultural and tertiary sectors	M	H	H	M	M	H	H
Reduce unemployment; annual and seasonal	?	?	?	?	?	?	?
Reduce out-migration and increase population growth	H	H	H	M	M	H	H
Increase male employment opportunities	L	M	H	H	L	H	M
Increase female employment opportunities	H	H	H	H	H	H	H
Increase employment opportunities for skilled people and those with higher education	M	H	H	H	M	H	H
Increase employment opportunities in manufacturing	M	H	H	M	M	H	H
Increase employment opportunities in services and construction	M	H	H	M	L	H	M
Increase industry diversification in each sector	M	H	H	M	M	H	H
Increase the size of urban centres for industry and services	L	L	H	L	L	M	M

especially for the young and educated people entering the labour force has been largely responsible for this. In addition, the region has very limited employment opportunities for women.

The districts most seriously affected are Manitoulin, Cochrane and Timiskaming. All three are relatively rural and have a basic economic sector which is providing a declining number of employment opportunities: in the District of Manitoulin the decline of agriculture is responsible for the slow growth while in Cochrane and Timiskaming it is due to the decline in gold mining and the mechanization of the forest industries. Employment opportunities and population growth in the more urban districts of Algoma, Nipissing and Sudbury are steady, but still below the provincial average.

2. Transportation and Communication

GOAL: To provide increased accessibility for urban and rural communities in the economic movement of people and goods.

Northeastern Ontario is one of the two most sparsely populated areas of the province. This has put considerable strain upon the existing transportation and communication networks. The existing settlement pattern has made it possible to serve most communities through the construction of a limited number of highways and railways. There is, nevertheless, a need to improve and expand existing facilities.

Problem Identification (i) As indicated in the base study, accessibility between centres of population is, on the whole quite adequate. Future areas of improvement in the existing network consist primarily of improvements to the region's north-south linkages. Additional desirable areas for future transportation linkages will depend upon the selection of growth points. To be of maximum benefit, growth points require a transportation network connecting them with smaller centres in their functionally defined spheres of influence. This is a prerequisite for the effective development of a growth centre's tertiary service sector.

(ii) In some parts of Northeastern Ontario, there is a need for additional development roads to provide access to mineral, forest and recreational resources. Further construction of these is crucial to future development. Although centres in Northeastern Ontario are generally within easy reach of existing recreational areas, much remains to be done to open up other areas of high recreational potential.

(iii) Airport accessibility is not a serious problem in the region. It is estimated that over 90 per cent of the total population live within reasonable access of existing airports. More land-based airstrips, however, would allow greater mobility between centres.

(iv) The basic communication networks in Northeastern Ontario are adequate to serve existing needs, but are not conducive to further

TABLE 7.2

TRANSPORTATION AND COMMUNICATION NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Improve roads for rural areas and smaller centres	M	M	H	L	L	L	M
Improve roads between larger urban centres	L	L	L	L	L	L	L
Improve airport facilities and passenger services	L	M	H	L	L	M	M
Improve access to and from airports	L	L	L	L	L	L	L
Improve passenger rail services	L	L	L	L	L	L	L
Improve rail cargo services	L	L	L	L	L	L	L
Develop air freight services	L	L	L	L	L	L	L
Improve truck freight services	M	M	M	M	M	M	M
Develop pipeline transport for natural resources	?	?	?	?	?	?	?
Natural resource development roads	M	H	L	M	H	M	H
Improve port facilities	L	n.a.	L	n.a.	n.a.	n.a.	L
Improve access to recreation areas	L	M	L	L	M	L	L
Protect and develop scenic highways	?	?	?	?	?	?	?
Improve communication facilities	M	H	L	L	L	M	M

economic growth or social betterment, especially in the remote centres. Improved communication facilities in strategic centres, providing business services, educational programs, health services and entertainment, could serve large surrounding areas, allowing flexible services with the minimum of investment in fixed plant and equipment.

3. Community and Regional Environment

GOAL: To develop Ontario's communities and conserve its regional environment in a manner which will provide the optimum livability for present and future generations.

The relatively undeveloped nature of Northeastern Ontario provides an opportunity to effectively plan for an optimum regional environment. Many of the more developed and more densely populated areas of North America have already lost this option. It is, therefore, essential that the environmental qualities of the region be preserved. The most urgent need is a more effective control of environmental pollution. Land use control and the conservation of space for recreational purposes are likely to be of increasing importance.

Problem identification (i) The lower incidence of pollution in Northeastern Ontario is not the result of positive pollution control but rather the relatively low number of pollution sources. Many of the municipalities in the region are without proper sewage treatment

facilities and thus contribute to the pollution of rivers and lakes. Industry is a more important source, air and water pollution being present wherever mines, smelters, refineries, pulp and paper mills and sawmills are found. Pollution is still a manageable problem in Northeastern Ontario. However, it is of the utmost importance that strict pollution regulations accompany its economic growth.

(ii) Northeastern Ontario is richly endowed with open space, abundant fish and wildlife and vast primary resources. Provincial parks are well located in terms of accessibility and most appropriate land use. Future population pressures will require effective conservation measures to ensure that future generations will continue to benefit from the natural resources.

(iii) The provision of orderly urban development does not now appear to be a serious problem in Northeastern Ontario, since most centres are relatively remote from other urban areas. However, problems are beginning to occur in the larger centres of Sudbury, Sault Ste. Marie and North Bay, and effective urban planning is essential.

(iv) Land use planning should ensure that Northeastern Ontario will not face the problems now existing in developed regions of

TABLE 7.3.

COMMUNITY AND REGIONAL ENVIRONMENT NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Municipal water supply	L	L	L	L	L	L	L
Municipal sewage treatment	M	M	M	H	H	H	M
Reduction of air pollution	M	M	L	M	H	L	M
Reduction of scenic pollution	M	L	L	L	H	L	M
Reduction of environmental pollution by chemicals, pest controls	?	?	?	?	?	?	?
Urban noise abatement	L	L	L	L	L	L	L
Protection of prime farmlands around urban cities	L	L	L	M	M	M	L
Preservation of prime recreation areas	M	M	M	M	M	M	M
Protection of fish and wildlife habitat	M	H	M	M	M	M	M
Reduction of erosion	?	?	?	?	?	?	?
Conservation of prime forest resources	H	H	L	H	H	M	H
Use and restoration of mineral sites	L	L	L	L	H	M	L

COMMUNITY AND REGIONAL ENVIRONMENT NEEDS (Cont.)

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Retention of open space between urban centres	L	L	L	L	M	L	L
Prevention of urban sprawl along highways	M	L	L	M	M	L	M
Concentration of urbanization in selected centres	H	H	M	H	H	H	H
Maintain a variety of different sized centres	L	H	L	M	L	H	M
Improve quality of urban neighbourhoods	L	M	H	M	M	H	M
Preparation of urban and rural land use plans	L	L	L	L	M	L	L

maintaining easy access to recreation areas and conserving valuable resources and agricultural land.

4. Social and Economic Welfare

GOAL: To provide opportunities and encouragement for every individual to fulfil his basic economic, psychological and physical needs and to develop his fullest potential for self-sufficiency while maintaining individuality, dignity and self-respect.

Below its prosperous surface, there are a large number of families in Northeastern Ontario unable to take part in the mainstream of economic activity. The incidence of poverty is found most frequently among rural farm families, among family heads with a low level of education and among the Indian population. Where a family or individual is incapable of earning a minimum level of income, income maintenance through government assistance is the only solution. However, where poverty is the result of unemployment, underemployment or low earning potential, programs such as manpower retraining are the best ways to enhance productivity and employability.

Problem Identification (i) Northeastern Ontario as a whole has a more favourable income distribution than the province, only 11.2 per cent of the households having an income of less than $3,000 in 1966, compared with 13.7 for the province. However, in the District of Manitoulin, approximately one-third of the households fall into

this poverty category. The District of Nipissing also has a relatively high incidence of poverty while serious pockets of poverty exist in a number of smaller centres and in the rural areas. The proportion of low-income households in the larger centres is quite low but in absolute terms it involves a substantial number of people.

(ii) There is a great need to reduce the disparity between rural and urban standards of living. The existing Agricultural and Rural Development Act, which is designed both to modernize the agricultural sector as well as reduce underemployment, would appear to offer the best long-term solution.

(iii) Serious problems face the native Indian in Northeastern Ontario. In conjunction with rapidly declining employment opportunities in their traditional occupations of hunting, fishing and trapping, they have one of the highest rates of population growth. Strong cultural differences have also prevented the Indian from effectively coping with the ever changing society. Continual migration of Indians to urban areas should be expected. It would appear that greater educational and employment opportunities on the reserves would enable the Indian people to maintain their identity, and at the same time improve their social and economic well-being.

(iv) Availability of social and economic services in the region as a whole does not differ significantly from the province although the fields of education and health do warrant special regional assistance.

TABLE 7.4.

SOCIAL AND ECONOMIC WELFARE NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Increase per cent of families living above poverty level	L	L	H	M	L	L	L
Reduce proportion requiring welfare	?	?	?	?	?	?	?
Equalize opportunities for the native population	H	H	H	H	H	H	H
Reduce disparity between urban and rural income	M	M	H	M	L	H	M
Increase proportion of farms grossing more than $10,000 per annum	L	M	H	M	M	H	M
Improve social services for low income groups	?	?	?	?	?	?	?
Improve social services for the aged	?	?	?	?	?	?	?
Improve social services for the young	?	?	?	?	?	?	?
Improve social services for family and marriage counselling	?	?	?	?	?	?	?

SOCIAL AND ECONOMIC WELFARE NEEDS (Cont.)

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Improve social services for the physically and mentally handicapped	?	?	?	?	?	?	?
Group social services in accessible centres	M	L	n.a.	M	M	M	M
Improve housing conditions	M	H	H	M	M	H	M
Reduce overcrowding in dwellings	L	M	L	L	L	M	L
Reduce housing costs for low income households	M	H	H	M	M	H	H
Increase the range of housing type choices	H	H	H	H	H	H	H

(v) The inadequate supply of good quality housing and of rental accommodation in Northeastern Ontario is a major problem. The scattered settlement pattern poses problems in the provision of municipal water and sewage services while the slow rates of growth of both population and economic activity have not encouraged residential construction. The most acute shortages are of apartments and lower-priced family homes. Mobile homes may offer an excellent solution to the housing problem in many areas of Northeastern Ontario, especially in new resource-based communities.

5. Public Safety

GOAL: To reduce the hazards to life and property from external events and maintain personal security.

Increased public safety is of vital concern to our modern society, and the incidence of property damage, fires, accidents and crimes is, at least, partially controllable.

Problem identification (i) There is a definite need to reduce the number of traffic accidents and fatalities in Northeastern Ontario, particularly in the District of Manitoulin.

(ii) The hazards of drowning appear to merit attention only in those districts bordering large masses of water. The districts of Sudbury and Timiskaming are least affected.

TABLE 7.5.

PUBLIC SAFETY NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Reduce traffic fatalities	H	H	H	H	H	M	H
Reduce recreation accidents (drowning)	H	H	H	H	H	H	H
Reduce occupational fatalities	H	H *	H	H	H	H*	H
Reduce occupational accidents	M	H *	L	H	H	H*	H
Reduce other accidents	M	H	L	M	M	M	M
Reduce the incidence of crimes	L	L	?	L	L	L	L
Increase the level of police protection	L	L	?	L	L	L	L
Reduce the incidence of fires	M	L	L	M	L	L	M
Reduce property damage from fires	H	H	L	M	H	H	H
Reduce the incidence of fire fatalities	H	M	H	H	H	H	H
Increase level of fire fighting protection	L	L	L	M	L	L	L

* The priorities in Cochrane and Timiskaming for occupational fatalities and accidents are based on the combined rate of these two districts

(iii) The number of fatal industrial accidents should be reduced, particularly in the districts of Algoma, Nipissing and Sudbury where mining and forestry predominate. Steps have already been taken to provide maximum safety to workers in these occupations.

(iv) The incidence of crime has been relatively low in North-eastern Ontario.

(v) Although the incidence of fires in the region is comparable to that in the province, property damage and loss of lives from fires are both high, especially in the districts of Algoma and Sudbury.

6. Health

GOAL: To achieve the best possible state of physical and mental health for Ontario inhabitants at minimum public and private cost.

The provision of adequate medical facilities, including hospital services, doctors and dentists, is the prime means of reducing the incidence of illness and premature deaths. In North-eastern Ontario, the scattered population pattern has caused substantial problems in establishing an adequate supply of these facilities, particularly doctors and dentists in all centres of the region, and on Indian Reserves. Recent Ontario Government programs should alleviate this situation.

Problem Identification (i) The infant mortality rate is high in all districts of the region, noticeably so in Manitoulin and Timiskaming. The high rate of infant mortality in the District of Manitoulin may be the result of a high infant mortality rate among the Indian population.

(ii) Inequalities exist between the larger urban centres and the smaller more remote communities in the quality and quantity of health services to which residents have access. Small centres individually cannot provide a full range of services and isolated settlements often experience great difficulty in obtaining services including those to meet emergencies.

(iii) Difficulties are present in the coordination of the range of health services for prevention, diagnosis, treatment and rehabilitation of the ambulatory and the bed-ridden patient.

(iv) There is an apparent shortage of medical and dental specialists outside the large urban centres and a shortage of health personnel in remote areas.

As there is an apparent shortage of both doctors and dentists outside the major urban centres, areas have been designated as underserviced and qualify for Ontario Government programs relating to business, guaranteed annual income and practice grants. The continuing urbanization of the region's population and the future designation of urban growth centres should result in a greater proportion

TABLE 7.6.

HEALTH NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Reduce infant mortality and other premature deaths	M	M	H	M	M	H	M
Reduce V.D. and other communicable diseases	?	?	?	?	?	?	?
Reduce the incidence of dental caries	?	?	?	?	?	?	?
Reduce the incidence of mental illness	?	?	?	?	?	?	?
Reduce the incidence of drug addiction	?	?	?	?	?	?	?
Improve medical facilities available	M	M	M	M	H	L	M
Increase the number of doctors and dentists	H	H	H	H	H	H	H
Improve ambulance services	?	?	?	?	?	?	?
Reduce public and private medical costs	?	?	?	?	?	?	?

of the population living within reach of improved medical services.

7. Education

GOAL: To provide opportunities and encouragement for each individual to achieve his highest potential of intellectual, personal and social development.

Educational facilities and level of attainment are continually improving in Northeastern Ontario, although the region is still well behind other parts of the province. Again, a population scattered over a vast land area causes problems in the provision of both adequate facilities and a variety of educational opportunities.

Problem Identification (i) Educational attainment is highest in the three most urbanized districts of Algoma, Sudbury and Nipissing. The proportion of children completing 12 years of formal education is still below that of the more southern parts of the province. Although this can be partly attributed to a lack of emphasis on the importance of education, it is also evident that good secondary school facilities are not always easily accessible. Most of the higher education facilities of the region are under-utilized at present, again, partly due to the limited curricula.

(ii) The student-teacher ratio in Northeastern Ontario is equal to, or better than, that in the province; nevertheless, the range of courses offered is more limited. There would seem to be an obvious need to upgrade and enlarge the secondary schools in the region.

TABLE 7.7.

EDUCATION NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Reduce secondary school drop-outs	L	M	H	L	L	M	M
Reduce pupil/teacher ratio	L	L	L	L	L	L	L
Upgrade smaller secondary schools	M	H	H	M	M	H	H
Increase post-secondary enrollment	M	H	H	M	M	M	M
Increase adult education and retraining courses	H	H	H	M	M	H	H

(iii) There is a substantial need to increase the adult education and retraining programs. Continuing mechanization in the primary activities of mining and forestry has displaced many people who are not prepared for alternative forms of employment. In addition, training programs are needed for those leaving agriculture and for the Indian population. Every effort should be made to extend the range of these programs and increase their availability.

8. Recreation and Culture

GOAL: To enhance the opportunity for Ontario residents and visitors to attain maximum recreational enjoyment and cultural enrichment in the use of leisure time.

Northeastern Ontario has much to offer the resident and the visitor to the region, and tourism will be of increasing importance to the regional economy. To ensure its proper development, a full range of public and private recreational services and facilities will have to be provided. In addition, to provide the best possible social climate for the people who live and work in Northeastern Ontario, adequate cultural facilities are necessary.

Problem Identification (i) Although the region has a substantial number of attractive, well-equipped provincial parks, their ability to attract an increasing number of visitors will necessitate a gradual increase not only in the number of parks but also in the facilities which are offered, including campsites, hiking trails,

TABLE 7.8

RECREATIONAL AND CULTURAL NEEDS

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Increase provincial parks	M	L	M	L	L	M	M
Increase regional and municipal parks	L	L	L	M	M	L	L
Increase public facilities: campsites	M	M	M	M	M	H	M
Increase public facilities: hiking trails	M	L	M	M	L	M	M
Increase public facilities: picnic areas	L	L	L	L	L	L	L
Increase public facilities: boating facilities	M	L	H	H	L	H	M
Increase public facilities: swimming facilities	L	L	L	L	L	L	L
Increase public facilities: ski/snowmobile trails	H	H	L	H	H	M	H
Increase public facilities: scenic drives	L	L	L	L	L	L	L
Increase public facilities: indoor and outdoor group sports	?	?	?	?	?	?	?

RECREATIONAL AND CULTURAL NEEDS (Cont.)

NEEDS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Increase private facilities for resorts	M	L	M	M	L	M	M
Increase private facilities for weekend and vacation cottages	M	L	M	M	L	M	M
Increase and improve libraries	M	M	M	M	M	M	M
Increase and improve art galleries and museums	L	L	L	L	L	L	L
Increase and improve TV and radio stations	L	M	L	L	L	M	L
Increase and improve weekly and daily newspapers	L	L	L	L	L	L	L
Preserve historic sites and buildings	H	H	H	H	H	H	H

picnic areas and opportunities for boating and swimming. Districts which could benefit most from these facilities are Algoma, Manitoulin and Timiskaming. Al districts would benefit from the provision of additional winter sports facilities, especially ski resorts and snowmobile trails, since this would help eliminate the seasonality of the tourist industry in the region.

(ii) Some private development of recreational facilities is necessary and all districts should be preparing suitable land for private cottage development. Private resort development, especially at winter sport areas, on waterways and lakefronts and in the northern hunting and fishing areas should also be encouraged.

(iii) The provision of a full range of cultural facilities in Northeastern Ontario may pose some problems. However, an increase in library facilities, local art galleries and historical museums should be encouraged, as should local participation in cultural activities. Of concern, is the preservation of historic sites and buildings within the region.

9. Overall Regional Priorities

It can be seen from the preceding discussion, that the performance of Northeastern Ontario, in relation to provincial goals, is below average in most, if not all, spheres. The region's greatest needs would appear to lie in increased economic development

TABLE 7.9.

OVERALL REGIONAL PRIORITIES

FUNCTIONAL OBJECTIVES	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Region
Economic Development	M	H	H	M	M	H	H
Transportation and Communication	M	H	M	L	L	M	M
Community and Regional Environment	L	M	L	M	M	M	M
Social and Economic Welfare	M	H	H	M	M	H	H
Public Safety	M	M	L	H	M	M	M
Health	M	M	M	H	H	M	M
Education	L	M	M	L	L	M	M
Recreation and Culture	M	L	M	M	L	M	M

and improved social and economic welfare. Once the Northeast develops a healthy economy it will attract more people and further development and many of the existing social problems will be alleviated. This is borne out by the fact that, in the more developed districts, namely Algoma, Nipissing and Sudbury, fewer functional areas are rated as having a high need for improvements. However, this situation may be also due to the higher urban concentration of people in major centres such as Sault Ste. Marie, North Bay and Sudbury.

Improvements in certain aspects of the transportation and communication network should also command relatively high priority as should the provision of doctors and dentists in many underserviced centres. Development of the recreational attractions of the region will be of considerable benefit to most districts in promoting the important tourist industry.

It should be emphasized that in none of the functional categories discussed, is the region as a whole considered as being adequately provided for, and hence no category is given a "low need" rating.

CHAPITRE VII

BUTS, BESOINS ET PRIORITÉS DE LA RÉGION

Introduction

La première tranche de ce rapport portait sur les buts provinciaux d'ordre général visant au plein développement social, économique et matériel de la Région du Nord-Est de l'Ontario. Que ces buts soient la création d'emplois, l'établissement de services sociaux ou la préservation de l'environnement, ils sont tous orientés vers cette recherche de meilleures conditions de vie. Cette préoccupation est d'ailleurs la même dans les dix régions de l'Ontario et aussi dans toutes les provinces du Canada.

Ce qui diffère d'une région à l'autre, c'est la nature et la gravité des problèmes locaux que l'on doit résoudre si l'on veut réaliser chacun de ces buts. Bien que le but principal de cette phase du programme d'aménagement régional consiste à déterminer les problèmes et les besoins de la région, les étapes suivantes serviront à trouver les moyens d'aborder ces

problèmes et de les solutionner ainsi qu'à élaborer des plans d'aménagement pour l'avenir.

Comme on le soulignait dans le Livre blanc de 1966 intitulé Plan d'aménagement, phase I, "Le programme d'aménagement régional de l'Ontario sera réalisé en grande partie grâce à une parfaite coordination des programmes, des politiques et des dépenses des ministères du gouvernement... sur le plan régional". L'une des conditions préalables à l'emploi efficace du budget provincial comme mécanisme pour réaliser les plans régionaux consiste à classifier toutes les dépenses des programmes provinciaux, d'après le genre de problèmes et de besoins dont ces programmes sont chargés.

A l'heure actuelle, chaque ministère provincial est engagé dans un programme de planification coordonnée, visant à déterminer ses propres buts en général et les objectifs de son plan de façon à trouver des solutions aux problèmes en particulier. Etant donné que les problèmes auxquels s'intéressent ces programmes provinciaux découlent tous des besoins locaux d'une ou de plusieurs régions en Ontario, nos plans d'aménagement régional doivent en fin de compte

viser les mêmes objectifs que les programmes respectifs des différents ministères et comprendre les mêmes prévisions budgétaires destinées à résoudre ces problèmes.

Plutôt que de reprendre les études que la province fait parallèlement pour définir les objectifs des programmes, ce rapport porte sur la tâche non moins importante qui consiste à fournir les éléments essentiels régionaux à ce que l'on peut appeler un programme de planification provinciale d'ensemble, c'est-à-dire à déterminer les priorités parmi les besoins les plus importants de chaque district et de la Région du Nord-Est de l'Ontario en entier. Pour assurer la coordination de nos buts avec ceux des différents ministères et pour permettre des comparaisons entre les régions, les besoins régionaux éventuels ont été groupés et classifiés dans les huit catégories de secteurs utilisées dans l'analyse des programmes provinciaux.

Pour certaines des questions en cause, le manque de renseignements précis empêche nos spécialistes de déterminer les priorités locales pour le moment. Dans d'autres cas, notre évaluation ne doit

être acceptée qu'à titre provisoire. Nous nous sommes efforcés dans une large mesure de tenir compte des recommandations d'autres ministères provinciaux. En outre, comme les meilleures données sur les besoins régionaux ne peuvent souvent être obtenues que par ceux qui ont la possibilité de constater quotidiennement les problèmes et les aspirations d'un endroit, nous nous sommes beaucoup inspirés des recommandations du programme de cinq ans du Conseil d'aménagement régional du Nord-Est de l'Ontario.

L'un des buts les plus importants de ce rapport consiste à fournir au Conseil d'aménagement régional et à la Commission consultative régionale l'occasion de réviser les priorités locales et, de concert avec les municipalités et les citoyens, d'aider le gouvernement de l'Ontario à acquérir une parfaite connaissance des conditions régionales vers lesquelles doivent s'orienter les plans et les prévisions budgétaires provinciales.

<u>Définition des buts, des besoins et des priorités</u>

L'élaboration des buts devrait fondamentale-

ment orienter la répartition de ressources limitées, par région et par secteur d'activités, pour répondre à certains des nombreux besoins. Les priorités accordées aux buts devraient servir à déterminer les montants qui seraient affectés aux différents secteurs d'activités tandis que les besoins régionaux devraient servir eux à déterminer les sommes les plus adéquates qui seraient accordées aux différentes régions géographiques. L'étude suivante cherchera principalement à découvrir les besoins régionaux, plutôt qu'à dégager les priorités parmi les buts définis. Les montants les plus appropriés des ressources affectées à la réalisation des divers objectifs devraient, jusqu'à un certain point, être déterminés par les localités régionales.

La planification régionale nécessite donc un travail de collaboration. Alors qu'il appartient aux spécialistes de la recherche d'effectuer une évaluation préliminaire des besoins, il incombe aux habitants des différentes régions de réévaluer ces besoins en tenant compte des aspirations de leurs localités respectives.

Pour se rendre compte à quel point les priorités peuvent varier d'une société à l'autre, il

suffit de constater la priorité importante que le Canada a accordée au développement du nord comparativement à celle que les Etats-Unis ont donnée à l'exploration spatiale.

Un exemple récent, soit la préoccupation croissante que l'on a accordée au contrôle de la pollution, illustre les changements de priorités qui peuvent se produire selon les époques. On doit donc souligner que l'ordre initial dans lequel seront classées les priorités suggérées dans la présente étude sera sujet à révision à mesure que de nouvelles nécessités et priorités surgiront.

Voici les huit catégories de secteurs d'activités dans le cadre desquelles les buts ont été déterminés:

développement économique,
transport et communications,
environnement local et régional,
bien-être social et économique,
sécurité publique,
santé,
éducation,
loisirs et culture.

Le reste de ce chapitre traitera de chacun de ces buts et des besoins les plus urgents de la région dans leurs secteurs respectifs d'activités.

Chacune des catégories étudiées fait l'objet d'une introduction définissant les buts en général. En se fondant sur cette définition, on peut ensuite préciser plus facilement les besoins et les priorités de la région et de ses districts. Pour faciliter cette analyse, les facteurs les plus frappants, indiquant l'existence des problèmes reliés à certains buts en particulier, ont été définis également. On s'est servi de la moyenne provinciale comme point de comparaison ou critère pour évaluer la situation relative de chacun des districts. Ceci ne signifie pas que la moyenne provinciale soit considérée en quelque sorte comme un maximum mais plutôt qu'elle n'est qu'un dénominateur commun pour toutes les régions.

Les besoins de la Région du Nord-Est de l'Ontario sont alors évalués dans des tableaux, au regard des facteurs choisis dans chacune des huit catégories de secteurs d'activités. Dans ces tableaux, on utilisera les signes abréviatifs suivants:

G grand besoin
M besoin moyen
F faible besoin
? renseignements insuffisants pour porter un jugement
b. i. besoin inexistant dans cette région ou ce district

1. Développement économique

BUT: aider chaque région à réaliser toutes ses possibilités de développement économique, en tenant compte du développement méthodique et rationnel de la province dans son ensemble.

Le problème le plus important auquel fait face la Région du Nord-Est de l'Ontario est le taux de croissance lent que connaît la majeure partie de son secteur industriel. Ceci, allié au manque de diversité des industries, a empêché la région d'établir les fondements d'une économie viable et auto-suffisante. La faible densité de la population a également empêché dans le passé l'établissement de manufactures attirées par les économies croissantes. Cette barrière bloquant la croissance économique ne disparaîtrait pas complètement dans le proche avenir. Les industries qui existent déjà dans la région devraient donc être encouragées à tirer profit au maximum de leur situation concurrentielle.

Définition des problèmes (i) Le revenu par habitant dans le Nord-Est de l'Ontario est inférieur à la moyenne provinciale. Et bien que certains indices laissent entrevoir le redressement de cet écart, un besoin d'amélioration en ce sens est évident. Ce besoin est

particulièrement urgent dans le district de Manitoulin, et à un degré moindre dans les districts de Cochrane, Nipissing et Timiskaming. Seuls les districts d'Algoma et de Sudbury enregistrent un revenu par habitant se situant près de la moyenne provinciale.

(ii) Le niveau de la productivité, tout comme les changements dont celle-ci fait l'objet, a été très élevé, particulièrement dans les secteurs des mines, de l'industrie forestière et de l'industrie de la fabrication primaire. Ces trois secteurs font grandement appel au capital et fonctionnent selon une technologie très avancée. L'importance des entreprises dans ces secteurs permet de croire que les disponibilités de capital ne constitueraient pas un obstacle à la mise en vigueur d'améliorations dans le domaine de la productivité.

La situation dans d'autres secteurs, particulièrement dans ceux de l'agriculture et des services, est essentiellement différente; il y existe un net décalage entre la technologie existante et celle employée dans la région. Dans le domaine de l'agriculture, les principaux facteurs responsables de

TABLEAU 7.1

DÉVELOPPEMENT ÉCONOMIQUE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Hausse du revenu et de la productivité par habitant	F	M	G	G	F	M	M
Hausse de la productivité dans les secteurs agricole et tertiaire	M	G	G	M	M	G	G
Chômage réduit: annuel et saisonnier	?	?	?	?	?	?	?
Emigration réduite et augmentation de la population	G	G	G	M	M	G	G
Augmentation des emplois pour les hommes	F	M	G	G	F	G	M
Augmentation des emplois pour les femmes	G	G	G	G	G	G	G
Augmentation des emplois pour les travailleurs spécialisés et les personnes possédant une instruction supérieure	M	G	G	G	M	G	G
Augmentation des emplois dans l'industrie manufacturière	M	G	G	M	M	G	G
Augmentation des emplois dans les services et la construction	M	G	G	M	F	G	M

TABLEAU 7.1 (Suite)

DÉVELOPPEMENT ÉCONOMIQUE

	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Augmentation de la diversité des industries dans chaque secteur	M	G	G	M	M	G	G
Agrandissement des centres urbains pour les industries et les services	F	F	G	F	F	M	M

cette situation sont la dimension des fermes, la disponibilité de capital et le niveau d'instruction peu élevé des cultivateurs. Dans le domaine des services, la fragmentation du marché a empêché le degré de spécialisation et le genre de fonctionnement qui auraient permis une spécialisation accrue et des économies de dimension (d'échelle). Là encore, c'est le district de Manitoulin qui est le plus touché. Les autres districts souffrent aussi de cette situation à un degré plus ou moins élevé selon l'importance de ces secteurs dans leurs limites.

La région a été incapable d'accroître sa capacité de production à un rythme suffisant pour absorber l'augmentation constante de la main-d'oeuvre, ce qui a provoqué une émigration importante.

(iii) L'augmentation lente de la population, découlant de l'émigration nombreuse, est l'un des problèmes les plus graves qui influence l'économie régionale. Le nombre limité des emplois accessibles particulièrement aux jeunes et aux personnes instruites qui arrivent sur le marché du travail est l'une des principales causes de cette situation. En outre, les débouchés pour la main-d'oeuvre féminine sont très

limités dans la région.

Les districts de Manitoulin, de Cochrane et de Timiskaming sont les plus gravement touchés par cet état de choses. Ces trois districts, relativement ruraux, présentent des secteurs économiques de base où le nombre de nouveaux emplois diminue. La lenteur de la croissance du district de Manitoulin est causée par le déclin de l'agriculture, tandis que dans les districts de Cochrane et de Timiskaming, elle est imputable à la régression des mines d'or et à l'automatisation de l'industrie forestière. La situation des emplois et l'augmentation de la population dans les districts plus urbains d'Algoma, de Nipissing et de Sudbury sont stables, mais également inférieures à la moyenne provinciale.

2. Transport et communications

BUT: rendre les centres urbains et ruraux plus accessibles du point de vue économique aux personnes et aux biens.

Le Nord-Est de l'Ontario constitue l'une des deux régions de la province où la population est la plus disséminée. Cette situation a imposé une surcharge au

réseau existant de transport et de communications de la région. La répartition actuelle des endroits habités a permis au réseau de desservir la plupart des localités en ne construisant qu'un nombre limité de routes et de voies ferrées. Il est néanmoins nécessaire d'améliorer et d'augmenter les services actuels.

Définition des problèmes (i) Comme on l'a souligné dans l'étude fondamentale, les moyens de communications entre les centres habités sont en général assez adéquats. Certaines améliorations au réseau actuel seraient nécessaires dans l'avenir, particulièrement aux services reliant le nord et le sud de la région. L'addition souhaitable d'autres services de transport dans l'avenir sera déterminée par le choix de certains endroits comme pôles de développement. Pour que leur croissance s'effectue au maximum, ces endroits doivent être desservis par un réseau de transport les reliant à des centres moins importants où ils exercent une certaine influence économique et culturelle. C'est là une condition préalable au développement efficace du secteur tertiaire d'un pôle de développement.

TABLEAU 7.2

TRANSPORT ET COMMUNICATIONS

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Amélioration des routes pour les régions rurales et les petites localités	M	M	G	F	F	F	M
Amélioration des routes entre les centres urbains plus importants	F	F	F	F	F	F	F
Amélioration des aéroports et des services aux passagers	F	M	G	F	F	M	M
Amélioration des voies d'accès aux aéroports	F	F	F	F	F	F	F
Amélioration des services aux voyageurs des chemins de fer	F	F	F	F	F	F	F
Amélioration des services de transport ferroviaire des marchandises	F	F	F	F	F	F	F
Etablissement de services de transport aérien des marchandises	F	F	F	F	F	F	F
Amélioration des services de transport routier des marchandises	M	M	M	M	M	M	M

TABLEAU 7.2 (Suite)

TRANSPORT ET COMMUNICATIONS

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Etablissement de pipe-lines pour le transport des ressources naturelles	?	?	?	?	?	?	?
Construction de routes pour l'aménagement des ressources naturelles	M	G	F	M	G	M	G
Amélioration des services portuaires	F	b.i.	F	b.i.	b.i.	b.i.	F
Amélioration des voies d'accès aux endroits de récréation	F	M	F	F	M	F	F
Protection et construction de routes touristiques	?	?	?	?	?	?	?
Amélioration des services de communications	M	G	F	F	F	M	M

(ii) A certains endroits, le Nord-Est de l'Ontario a besoin de routes supplémentaires permettant l'accès aux ressources minières, forestières et récréatives. La construction de ces voies est essentielle au développement futur. Les habitants des centres du Nord-Est de l'Ontario peuvent généralement avoir accès facilement aux endroits de récréation existants; toutefois, il reste encore beaucoup à faire pour aménager d'autres endroits qui présentent de grandes possibilités pour les loisirs.

(iii) L'accès aux aéroports ne représente pas un grave problème dans la région. On évalue que plus de 90 pour cent de la population totale habite à une distance raisonnable des aéroports existants. Un plus grand nombre de pistes d'atterrissage permettrait toutefois une plus grande facilité de communication entre les centres.

(iv) Le réseau de base des communications dans le Nord-Est de l'Ontario répond adéquatement aux besoins actuels, mais il n'est pas susceptible de favoriser dans l'avenir la croissance économique ou l'amélioration des conditions sociales, particulièrement dans les centres éloignés. Des systèmes de communi-

cations améliorés dans certains centres choisis, fournissant des services pour les affaires, les programmes d'éducation, la santé et les loisirs, pourraient desservir de grandes régions avoisinantes. Il s'agirait de services souples ne nécessitant qu'un minimum d'investissements en matériel et outillage fixes.

3. Environnement local et régional

BUT : aménager les localités de l'Ontario et préserver son environnement régional de façon à permettre les meilleures conditions de vie possible aux générations actuelles et futures.

Parce qu'il est relativement moins développé, le Nord-Est de l'Ontario fournit l'occasion unique de planifier au maximum l'aménagement de l'environnement régional. Plusieurs des régions plus développées et plus peuplées de l'Amérique du Nord n'ont plus ce choix. Il est donc essentiel que les qualités de l'environnement de la région soient préservées. Le contrôle plus efficace de la pollution de l'environnement constitue le besoin le plus urgent. Le contrôle de l'utilisation des terres et la conservation des terrains réservés aux loisirs devraient avoir également une importance accrue.

<u>Définition des problèmes</u> (i) Le taux peu élevé de la pollution dans le Nord-Est de l'Ontario ne résulte pas d'un contrôle efficace de la pollution mais plutôt du nombre relativement restreint des sources de pollution. Plusieurs des municipalités de la région ne sont pas pourvues d'un système d'épuration des eaux usées approprié, contribuant ainsi à la pollution des rivières et des lacs. L'industrie est une source beaucoup plus grave de pollution de l'air et de l'eau, là où se trouvent des mines, des fonderies, des raffineries, des papeteries et des scieries. La pollution demeure un problème contrôlable dans le Nord-Est de l'Ontario. Toutefois, il est extrêmement important que des règlements sévères sur la pollution soient adoptés pour accompagner la croissance économique de la région.

(ii) Le Nord-Est de l'Ontario est riche en grands espaces et en richesses naturelles primaires. Les poissons et le gibier y foisonnent. Les parcs provinciaux y sont bien situés au point de vue accès et utilisation appropriée des terres. Les exigences de la population dans l'avenir nécessiteront des mesures de conservation efficaces pour

TABLEAU 7.3

ENVIRONNEMENT LOCAL ET RÉGIONAL

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Approvisionnement municipal en eau	F	F	F	F	F	F	F
Traitement municipal des eaux usées	M	M	M	G	G	G	M
Réduction de la pollution de l'air	M	M	F	M	G	F	M
Réduction des altérations aux décors naturels	M	F	F	F	G	F	M
Réduction de la pollution de l'environnement par les produits chimiques, les pesticides	?	?	?	?	?	?	?
Diminution du bruit urbain	F	F	F	F	F	F	F
Protection des terres agricoles utilisables de premier ordre, situées près des villes	F	F	F	M	M	M	F
Préservation des endroits de récréation de premier ordre	M	M	M	M	M	M	M
Protection de l'habitat naturel des poissons et du gibier	M	G	M	M	M	M	M

TABLEAU 7.3 (Suite)

ENVIRONNEMENT LOCAL ET RÉGIONAL

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Réduction de l'érosion	?	?	?	?	?	?	?
Conservation des ressources forestières de premier ordre	G	G	F	G	G	M	G
Utilisation et restauration des gisements miniers	F	F	F	F	G	M	F
Conservation des grands espaces entres les centres urbains	F	F	F	F	M	F	F
Mesures pour empêcher l'éparpillement des agglomérations le long des routes	M	F	F	M	M	F	M
Concentration de l'urbanisation dans des centres choisis	G	G	M	G	G	G	G
Conservation des centres de différentes dimensions	F	G	F	M	F	G	M
Conservation de la qualité des périphéries urbaines	F	M	G	M	M	G	M

TABLEAU 7.3 (Suite)

ENVIRONNEMENT LOCAL ET RÉGIONAL

	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Préparation de plans d'urbanisme et d'utilisation des terres rurales	F	F	F	F	M	F	F

veiller à ce que les générations futures puissent continuer à profiter des richesses naturelles.

(iii) L'aménagement urbain méthodique ne semble pas causer de graves problèmes dans le Nord-Est de l'Ontario, étant donné que la plupart des centres sont relativement éloignés des autres régions urbaines. Cependant, des problèmes commencent à surgir dans les grands centres comme Sudbury, Sault-Sainte-Marie et North Bay, et un plan d'urbanisme efficace est essentiel.

(iv) La planification de l'utilisation des terres devrait viser à éviter au Nord-Est de l'Ontario les problèmes auxquels les régions développées font face, en conservant l'accès facile aux endroits de récréation et en assurant la préservation des richesses naturelles et des terres agricoles.

4. Bien-être social et économique

BUT : fournir les possibilités et l'encouragement nécessaires à chaque individu pour qu'il puisse satisfaire ses besoins économiques, psychologiques et matériels fondamentaux et développer au maximum ses aptitudes à se suffire à lui-même tout en conservant son individualité, sa dignité et son respect de lui-même.

Malgré la prospérité apparente du Nord-Est de l'Ontario, il y existe un grand nombre de familles incapables de profiter des principaux avantages économiques. La pauvreté se trouve le plus fréquemment chez les familles rurales agricoles, les familles dont les chefs possèdent un niveau d'instruction inférieur et parmi la population indienne. Lorsqu'une famille ou un individu ne peut gagner un revenu minimum, une compensation sous forme d'assistance gouvernementale est la seule solution au problème. Cependant, lorsque la pauvreté découle du chômage, du sous-emploi ou des possibilités d'emplois peu rémunérateurs, des programmes comme par exemple le recyclage de la main-d'oeuvre constituent les meilleurs moyens de susciter sa capacité de fournir un meilleur rendement et de se faire employer.

<u>Définition des problèmes</u> (i) En général, la répartition des revenus dans le Nord-Est de l'Ontario est plus favorable que dans le reste de la province. Par exemple, seulement 11.2 pour cent des familles avaient un revenu inférieur à $3,000 en 1966, comparativement à 13.7 pour cent dans l'ensemble de la

province. Toutefois, dans le district de Manitoulin, environ un tiers des familles tombent dans la classe pauvre. Le district de Nipissing présente également un taux relativement élevé de pauvreté, alors qu'il existe d'importants foyers de pauvreté dans plusieurs villes moins grandes et dans les régions rurales. La proportion des familles n'ayant que de petits revenus dans les plus grandes villes est passablement basse, bien qu'à toutes fins pratiques elle touche un nombre considérable de personnes.

(ii) Il est essentiel d'atténuer la disparité qui existe entre les niveaux de vie des villes et des régions rurales. La présente loi de l'Administration de l'aménagement rural et du développement agricole, conçue pour moderniser le secteur agricole et aussi pour réduire le sous-emploi, semblerait offrir la meilleure solution à long terme.

(iii) Les problèmes des Indiens du Nord-Est de l'Ontario sont graves. Tout en subissant une diminution rapide des débouchés que leur offraient leurs occupations traditionnelles de chasseurs, de pêcheurs et de trappeurs, ils présentent aussi l'un des plus hauts taux d'augmentation de population. D'impor-

tantes caractéristiques culturelles différentes ont empêché les Indiens de s'adapter efficacement à la société en évolution constante. On doit s'attendre à une émigration continue des Indiens vers les régions urbaines. Il semble que de meilleures possibilités d'instruction et d'emploi dans les réserves permettraient aux Indiens de conserver leur identité, tout en améliorant en même temps leur bien-être social et économique.

(iv) Les services sociaux et économiques mis à la disposition du public dans la région ne sont pas tellement différents de ceux qui existent dans le reste de la province, mais l'éducation et la santé nécessitent une assistance régionale spéciale.

(v) La rareté des habitations de bonne qualité et des logements à louer est un problème grave dans le Nord-Est de l'Ontario. La dissémination des endroits habités dans la région pose certains problèmes relativement aux services d'eau et d'égout municipaux. D'autre part, la lenteur du taux de croissance de la population et de l'activité économique n'a pas favorisé la construction d'habitations.

TABLEAU 7.4

BIEN-ÊTRE SOCIAL ET ÉCONOMIQUE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Augmentation du pourcentage des familles d'un niveau de vie supérieur à la classe pauvre	F	F	G	M	F	F	F
Diminution de la proportion des citoyens ayant besoin d'une assistance sociale	?	?	?	?	?	?	?
Egalité des chances pour la population indigène	G	G	G	G	G	G	G
Réduction de la disparité des revenus entre les régions urbaines et rurales	M	M	G	M	F	G	M
Augmentation de la proportion des fermes dont le revenu brut dépasse $10,000 par année	F	M	G	M	M	G	M
Amélioration des services sociaux pour les groupes dont les revenus sont faibles	?	?	?	?	?	?	?
Amélioration des services sociaux pour les personnes âgées	?	?	?	?	?	?	?
Amélioration des services sociaux pour la jeunesse	?	?	?	?	?	?	?

TABLEAU 7.4 (Suite)

BIEN-ÊTRE SOCIAL ET ÉCONOMIQUE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Amélioration des services sociaux dans le domaine des consultations familiales et matrimoniales	?	?	?	?	?	?	?
Amélioration des services sociaux pour les handicapés physiques et mentaux	?	?	?	?	?	?	?
Centralisation des services sociaux dans les centres accessibles	M	F	b.i.	M	M	M	M
Amélioration des conditions de logement	M	G	G	M	M	G	M
Réduction du surpeuplement des logements	F	M	F	F	F	M	F
Réduction du coût du logement pour les familles dont les revenus sont faibles	M	G	G	M	M	G	G
Augmentation de la diversité des genres de logement offerts	G	G	G	G	G	G	G

La pénurie de logement la plus grave touche les appartements et les habitations familiales à prix modiques. Les habitations mobiles peuvent se révéler une excellente solution au problème du logement dans plusieurs régions du Nord-Est de l'Ontario, particulièrement dans les nouvelles localités surgissant près des industries intéressées à l'exploitation des richesse naturelles.

5. Sécurité publique

BUT : réduire les risques de dommages à la vie et à la propriété, résultant de causes extérieures, et veiller à la sécurité des individus.

L'amélioration de la sécurité publique est l'une des préoccupations les plus importantes de notre société moderne. La fréquence des dommages à la propriété, des incendies, des accidents et des crimes est jusqu'à un certain point contrôlable.

Définition des problèmes (i) Il est nettement nécessaire de réduire le nombre des décès survenus sur les routes et des accidents de la circulation dans le Nord-Est de l'Ontario, particulièrement dans le district de Manitoulin.

(ii) Les risques de noyade ne peuvent retenir l'attention que dans les districts situés près des grandes étendues d'eaux. Les districts de Sudbury et de Timiskaming sont les moins touchés dans ce domaine.

(iii) Le nombre des accidents mortels dans l'industrie devrait être réduit, particulièrement dans les districts d'Algoma, de Nipissing et de Sudbury où les industries minières et forestières prédominent. Des mesures ont déjà été prises pour fournir le maximum de sécurité aux travailleurs de ces industries.

(iv) Le taux de criminalité a été relativement faible dans le Nord-Est de l'Ontario.

(v) Bien que la fréquence des incendies dans la région soit comparable à celle du reste de la province, les dommages à la propriété et les pertes de vie résultant d'incendies sont élevés, particulièrement dans les districts d'Algoma et de Sudbury.

TABLEAU 7.5

SÉCURITÉ PUBLIQUE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Réduction des décès causés par des accidents de la circulation	G	G	G	G	G	M	G
Réduction des accidents survenus durant les loisirs (noyades)	G	G	G	G	G	G	G
Réduction des décès au travail	G	G*	G	G	G	G*	G
Réduction des accidents de travail	M	G*	F	G	G	G*	G
Réduction des accidents divers	M	G	F	M	M	M	M
Réduction de la fréquence des crimes	F	F	?	F	F	F	F
Augmentation du niveau de la protection policière	F	F	?	F	F	F	F
Réduction de la fréquence des incendies	M	F	F	M	F	F	M
Réduction des dommages à la propriété causés par les incendies	G	G	F	M	G	G	G

TABLEAU 7.5 (Suite)

SÉCURITÉ PUBLIQUE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Réduction de la fréquence des décès causés par les incendies	G	M	G	G	G	G	G
Augmentation du niveau de la protection des services d'incendies	F	F	F	M	F	F	F

* Les priorités accordées aux accidents de travail et aux décès survenus au travail dans les districts de Cochrane et Timiskaming sont fondées sur le taux moyen des deux districts combinés.

6. Santé

BUT: permettre aux habitants de l'Ontario de se maintenir dans le meilleur état de santé physique et mental, à un coût minimum tant dans le secteur privé que public.

L'établissement de services médicaux adéquats, y compris les services des hôpitaux, des médecins et des dentistes, constitue le meilleur moyen de réduire le taux de maladie et de mortalité précoce. Dans le Nord-Est de l'Ontario, la dissémination de la population a causé d'importants problèmes concernant l'établissement de services médicaux suffisants, particulièrement en ce qui touche l'établissement de médecins et de dentistes dans tous les centres de la région et sur les réserves indiennes. Les récents programmes du gouvernements de l'Ontario devraient améliorer la situation.

Définition des problèmes (i) Le taux de mortalité infantile est élevé dans tous les districts de la région, notamment dans les districts de Manitoulin et de Timiskaming. Le taux élevé de mortalité infantile chez les Indiens est probablement la cause de cette situation dans le district de Manitoulin.

(ii) Il existe certaines inégalités entre les grands centres urbains et les municipalités plus

petites et plus éloignées, quant à la qualité et à la quantité des services médicaux mis à la disposition des habitants. Les petites localités ne peuvent individuellement fournir des services complets et les endroits isolés font souvent face à de grandes difficultés quant il s'agit d'obtenir ces services, y compris les services d'urgence.

(iii) On éprouve certaines difficultés à coordonner les divers services médicaux comme les services de prévention, de diagnostic, de traitement et de réhabilitation pour les malades alités ou non.

(iv) Il semble y avoir une pénurie de médecins et de dentistes à l'extérieur des grands centres urbains et une pénurie de personnel médical dans les régions isolées.

Comme il semble y avoir pénurie de médecins et de dentistes à l'extérieur des principaux centres urbains, certaines régions ont été désignées comme étant sous-développées dans ce domaine et remplissent donc les conditions requises pour obtenir l'aide des programmes du gouvernement de l'Ontario assurant un revenu annuel garanti et des subventions pour permettre aux médecins et aux dentistes d'exercer leur

TABLEAU 7.6

SANTÉ

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Réduction des mortalités infantiles et précoces	M	M	G	M	M	G	M
Réduction des maladies vénériennes et contagieuses	?	?	?	?	?	?	?
Réduction du taux de caries dentaires	?	?	?	?	?	?	?
Réduction du taux de maladies mentales	?	?	?	?	?	?	?
Réduction du taux de la toxicomanie	?	?	?	?	?	?	?
Amélioration des services médicaux existants	M	M	M	M	G	F	M
Augmentation du nombre des médecins et des dentistes	G	G	G	G	G	G	G
Amélioration des services d'ambulance	?	?	?	?	?	?	?
Réduction du coût des services médicaux privés et publics	?	?	?	?	?	?	?

profession. L'urbanisation continue de la population de la région et l'établissement futur de pôles de développement devraient permettre à une plus grande proportion de la population de vivre à proximité de services médicaux améliorés.

7. Education

BUT : fournir les possibilités et l'encouragement nécessaires à chaque individu pour atteindre le plus haut niveau de formation intellectuelle, personnelle et sociale.

Les moyens d'instruction et le niveau que l'on peut atteindre dans ce domaine s'améliorent continuellement dans le Nord-Est de l'Ontario, même si la région tire de l'arrière comparativement aux autres régions de la province. Encore une fois, la dissémination de la population sur un territoire très vaste cause des problèmes quant à l'établissement d'institutions appropriées et à la diversité des options offertes.

Définition des problèmes (i) Le niveau d'instruction est le plus élevé dans les trois districts les plus urbanisés, soit ceux d'Algoma, de Sudbury et de Nipissing. La proportion des élèves qui terminent la

12ième année demeure toutefois inférieure à celle des régions plus au sud de la province. Même si l'on peut attribuer cette situation au fait que l'on n'ait pas appuyé suffisamment sur l'importance de l'éducation, il est évident que de bonnes écoles secondaires ne sont pas facilement accessibles à plusieurs. La plupart des institutions d'enseignement supérieur de la région ne sont pas utilisées à leur pleine capacité à l'heure actuelle, en partie à cause des programmes d'études limités.

(ii) Le rapport entre le nombre des instituteurs et le nombre d'élèves dans le Nord-Est de l'Ontario est égal ou supérieur à celui de la province dans son ensemble. Toutefois, la variété des cours offerts est plus limitée. Il semble nettement nécessaire d'améliorer et d'agrandir les écoles secondaires de la région.

(iii) Il est également important d'accroître les possibilités d'instruction pour les adultes et les cours de recyclage. L'automatisation continuelle de la phase primaire des activités dans les industries minières et forestières a provoqué le déplacement de

TABLEAU 7.7

ÉDUCATION

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Diminution du nombre des élèves qui abandonnent les études secondaires	F	M	G	F	F	M	M
Réduire les disproportions du rapport entre le nombre des instituteurs et celui des élèves	F	F	F	F	F	F	F
Amélioration des petites institutions secondaires	M	G	G	M	M	G	G
Augmentation des inscriptions dans les institutions post-secondaires	M	G	G	M	M	M	M
Amélioration de l'éducation des adultes et des cours de recyclage	G	G	G	M	M	G	G

plusieurs travailleurs qui ne sont pas préparés à remplir d'autres fonctions. En outre, des cours de formation sont nécessaires pour ceux qui quittent le domaine de l'agriculture et pour la population indienne. On devrait tout mettre en oeuvre pour accroître la variété de ces cours et les rendre encore plus accessibles.

8. Loisirs et culture

BUT : procurer aux habitants et aux visiteurs les moyens de se divertir et d'enrichir leur culture pleinement, dans leurs moments de loisirs.

Le Nord-Est de l'Ontario a beaucoup à offrir dans ce domaine aux habitants et aux visiteurs de la région, et le tourisme deviendra de plus en plus important pour l'économie régionale. Pour assurer le meilleur développement de cette industrie, on devra établir un ensemble complet de services publics et privés de loisirs. En outre, pour procurer aux citoyens qui vivent et travaillent dans le Nord-Est de l'Ontario le meilleur climat social possible, des services culturels appropriés sont nécessaires.

Définition des problèmes (i) Même si la région compte plusieurs parcs provinciaux pittoresques et dotés d'excellents services, il faudra pour attirer un nombre croissant de visiteurs augmenter graduellement non seulement le nombre des parcs mais aussi les services qui sont offerts comme les terrains de camping, les sentiers pour les promenades, les terrains de piques-niques et les endroits pour le canotage et le bain. Les districts qui profiteraient le plus de ces avantages sont ceux d'Algoma, de Manitoulin et de Timiskaming. Tous les districts bénéficieraient d'un plus grand nombre de stations pour les sports d'hiver, particulièrement pour le ski et la motoneige, étant donné que l'on pourrait ainsi atténuer le caractère saisonnier de l'industrie touristique de la région.

(ii) L'aménagement de certains endroits de villégiature est nécessaire et tous les districts devraient préparer des terrains convenables pour la construction de chalets privés. L'aménagement de lieux de villégiature privés, particulièrement dans les régions où l'on pratique les sports d'hiver, près des lacs, et

TABLEAU 7.8

LOISIRS ET CULTURE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Augmentation des parcs provinciaux	M	F	M	F	F	M	M
Augmentation des parcs régionaux et municipaux	F	F	F	M	M	F	F
Augmentation des services publics: terrains de camping	M	M	M	M	M	G	M
Augmentation des services publics: sentiers pour les promenades	M	F	M	M	F	M	M
Augmentation des services publics: terrains de piques-niques	F	F	F	F	F	F	F
Augmentation des services publics: endroits pour le canotage	M	F	G	G	F	G	M
Augmentation des services publics: endroits pour le bain	F	F	F	F	F	F	F

TABLEAU 7.8 (Suite)

LOISIRS ET CULTURE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Augmentation des services publics: pistes de ski et de motoneige	G	G	F	G	G	M	G
Augmentation des services publics: routes touristiques	F	F	F	F	F	F	F
Augmentation des services publics: sports intérieurs et extérieurs de groupe	?	?	?	?	?	?	?
Augmentation des lieux de villégiature privés	M	F	M	M	F	M	M
Augmentation des chalets privés pour les fins de semaine et les vacances	M	F	M	M	F	M	M
Augmentation et amélioration des bibliothèques	M	M	M	M	M	M	M
Augmentation et amélioration des galeries d'art et des musées	F	F	F	F	F	F	F

TABLEAU 7.8 (Suite)

LOISIRS ET CULTURE

BESOINS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Augmentation et amélioration des stations de radio et de télévision	F	M	F	F	F	M	F
Augmentation et amélioration des quotidiens et des hebdomadaires	F	F	F	F	F	F	F
Préservation des lieux et des immeubles historiques	G	G	G	G	G	G	G

dans les territoires de chasse et de pêche du nord devrait être encouragé.

(iii) L'établissement de services culturels complets dans le Nord-Est de l'Ontario peut poser certains problèmes. Cependant, on devrait susciter l'établissement d'un plus grand nombre de bibliothèques, de galeries d'art locales et de musées historiques, et encourager les citoyens à participer aux activités culturelles. On doit se préoccuper de la préservation des lieux et des immeubles historiques de la région.

9. Priorités générales de la région

On peut constater d'après l'étude précédente que les réalisations dans le Nord-Est de l'Ontario, au regard de ces buts provinciaux, sont inférieures à la moyenne dans la plupart sinon dans tous les domaines. Les besoins les plus importants de la région sembleraient se situer dans une croissance économique plus étendue et dans l'amélioration du bien-être social et économique. Lorsque le Nord-Est de l'Ontario aura mis au point une saine économie, il attirera un plus grand nombre de citoyens et provo-

quera des développements accrus. Plusieurs des problemes sociaux existants seront alors éliminés. Ceci est démontré par le fait que dans les districts les plus développés comme Algoma, Nipissing et Sudbury, plusieurs des secteurs d'activités ne tombent pas dans la catégorie des grands besoins. Toutefois, cette situation est peut-etre aussi causée par une concentration urbaine plus élevée de la population dans les principaux centres comme Sault-Sainte-Marie, North Bay et Sudbury.

On devrait accorder une importante priorité à l'amélioration de certains aspects du réseau de transport et de communications, de meme qu'à l'établissement de médecins et de dentistes dans plusieurs centres sous-développés a ce point de vue. L'aménagement des lieux et des services servant aux loisirs dans la région bénéficiera considérablement à la plupart des districts en stimulant l'importante industrie touristique.

Soulignons enfin qu'aun des secteurs d'activités dont on a fait l'étude classé dans la catégorie des "faibles besoins" parce que l'on a

TABLEAU 7.9

PRIORITÉS GÉNÉRALES DE LA RÉGION

BUTS DANS LES SECTEURS D'ACTIVITÉS	Algoma	Cochrane	Manitoulin	Nipissing	Sudbury	Timiskaming	Région
Développement économique	M	G	G	M	M	G	G
Transport et communications	M	G	M	F	F	M	M
Environnement local et régional	F	M	F	M	M	M	M
Bien-être social et économique	M	G	G	M	M	G	G
Sécurité publique	M	M	F	G	M	M	M
Santé	M	M	M	G	G	M	M
Education	F	M	M	F	F	M	M
Loisirs et culture	M	F	M	M	F	M	M

jugé que dans l'ensemble de la région, ils ne sont pas suffisamment développés.